EAP01
Emergency Announcement Point

Product Manual

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This equipment is designed and manufactured to conform to the following EC standards:

EMC EN55103-1/E1, EN55103-2/E5, EN50121-4, ENV50204, ENV61000-4-13

Safety EN60065

Failure to use the equipment in the manner described in the product literature will invalidate the warranty.

A 'Declaration of Conformity' statement to the above standards, and a list of auxiliary equipment used for compliance verification, is available on request.

This product must be disposed of in accordance with the WEEE directive.

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1 Description

The EAP01 Emergency Announcement Point is housed in an IP65 vandal resistant, lockable wall-mounting box. It is designed to work with the whole range of ASL Voice Alarm and Public Address systems, and is normally used for making All-Call emergency announcements to entire facilities. The unit features indicators for 'Busy', 'Speak Now', and 'System Fault', together with a 'Status' indicator.

The EAP01 will operate in an All-Call mode even in the event of processor failure within the Router[1], as required by BS5839 Pt.8. The unit should be connected to Router's inputs 1 or 2, which operate in the All-Call failsafe override mode in the event of processor failure.

Hardwired connections to the Emergency Announcement Point interface all LEDs and switches to the Router, while microphone audio is provided as a balanced 0 dBu (nominal) analogue signal. The EAP01 features a built-in signal limiter to accommodate varying operator technique. The microphone's processor is responsible for generating an outgoing 20 Hz surveillance tone which is used to monitor the audio connection to the Router, while microphone capsule monitoring is performed by injection and monitoring of a signal such that either open or short circuit of the capsule or associated wiring will indicate a fault.

Hardwired connections are provided for the PTT switch, and Speak Now and System Fault LEDs. The cabling to the PTT switch and Speak Now LEDs is continuously monitored by the Router for open and short circuits.

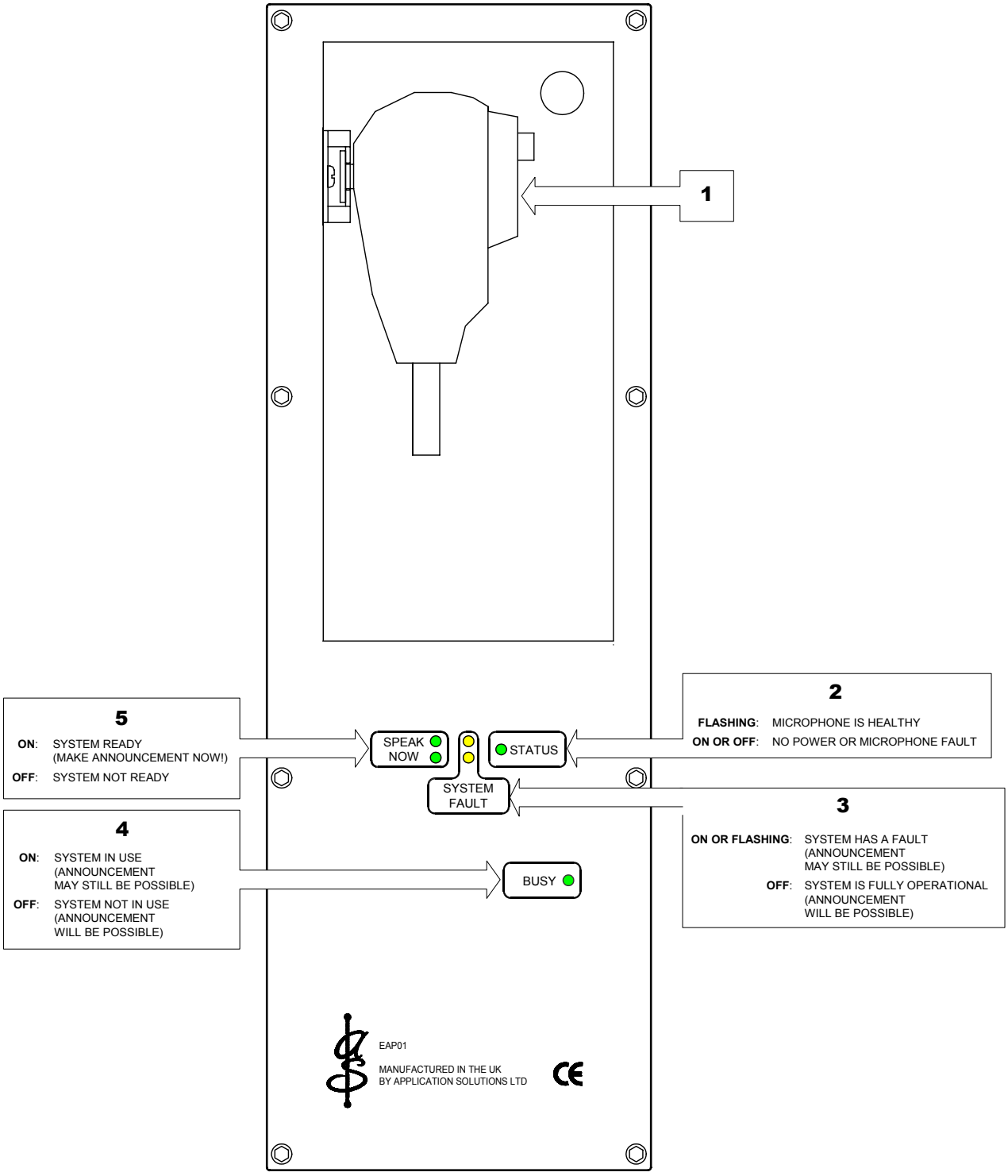
Field connections are provided on the inside rear panel of the back box by DIN rail mounted terminals.

[1] The Router can be either a rack mounted or a wall mounted ASL Voice Alarm and Public Address system:
- Rack mounted system: VAR4, VAR12, VAR20, VAR8, or VAR8-ACU
- Wall mounted system: DAU (Distributed Amplifier Unit), or ACU (Audio Control Unit)

2 Operation

2.1 Control and Indicators

Figure 1 EAP01 Front Panel



1 **Fist Microphone with integral PTT button**

When the PTT button is pressed it activates the All-Call zone selection, opens the microphone channel, and triggers the pre-announcement chime (if programmed at the Router), ready for the paging announcement.

When the PTT button is released, the microphone channel is closed and the routes are terminated.

2 **STATUS Indicator** (green)

This flashes if the EAP01 is powered and healthy.

If the indicator is constantly off or on, then there is a fault with the EAP01 electronics, or loss of power.

3 **SYSTEM FAULT Indicators** (yellow)

These illuminate constantly on or flashing if any fault is present on the PA/VA system.

Note that this does not indicate that the EAP01 or the system is not operational, but it may indicate that it may not be fully operational. A fault may be present with a fully operational system, for example, if an amplifier has failed but has been automatically replaced by a standby amplifier.

4 **BUSY Indicator** (green)

This function can be optionally cabled.

When the BUSY indicator is lit it indicates that the zone (or one or more of the group of zones) addressed by the microphone is already in use by another input. The Emergency Announcement Microphone can normally still make an announcement as it normally has a high priority within the system.

5 **SPEAK NOW Indicators** (green)

When the Press To Talk button is pressed, and the chime (if programmed at the Router) has finished, the SPEAK NOW indicators illuminate to indicate that the announcement can be made.

2.2 Live Announcements via the Fist Microphone

1. Access the internal front panel by unlocking and opening the cabinet door with the associated KABA key.

2. Unhook the Fist Microphone from its retaining clip.

> ⚠ The PTT switch is located on the side of the fist-microphone, and care should be taken whilst removing the microphone from its mounting clip to avoid accidentally pressing the PTT switch prematurely.

BUSY ON

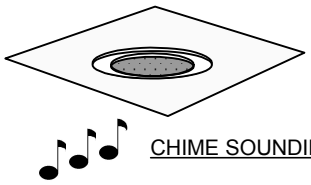
3. If the **BUSY** indicator is illuminated, it indicates that an announcement is already in progress on the associated zone (or one or more of the group of zones). It is, however, likely that the announcement source is of lower priority than the EAP01, so the operator may override this announcement.

PRESS TO TALK BUTTON

PRESS AND HOLD

4. Initiate the announcement at a suitable time by pressing and holding the PTT button integral with the Fist Microphone.

LOUDSPEAKER

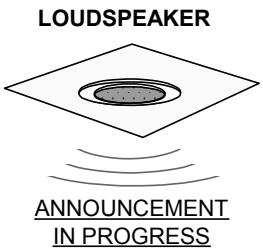


CHIME SOUNDING

5. If programmed at the Router, the pre-announcement chime will sound.

6. When the chime has finished (if programmed at the Router), the **SPEAK NOW** LED will illuminate. If no chime has been programmed then the **SPEAK NOW** indicator will illuminate immediately.

Once the **SPEAK NOW** indicator has illuminated you can make the announcement.



Recommendations for Optimum Results

a. Speak slowly and clearly while observing the correct positioning of the microphone in relation to your mouth.

b. Speak at a normal conversational level with the mouth directly adjacent to the Fist Microphone capsule.

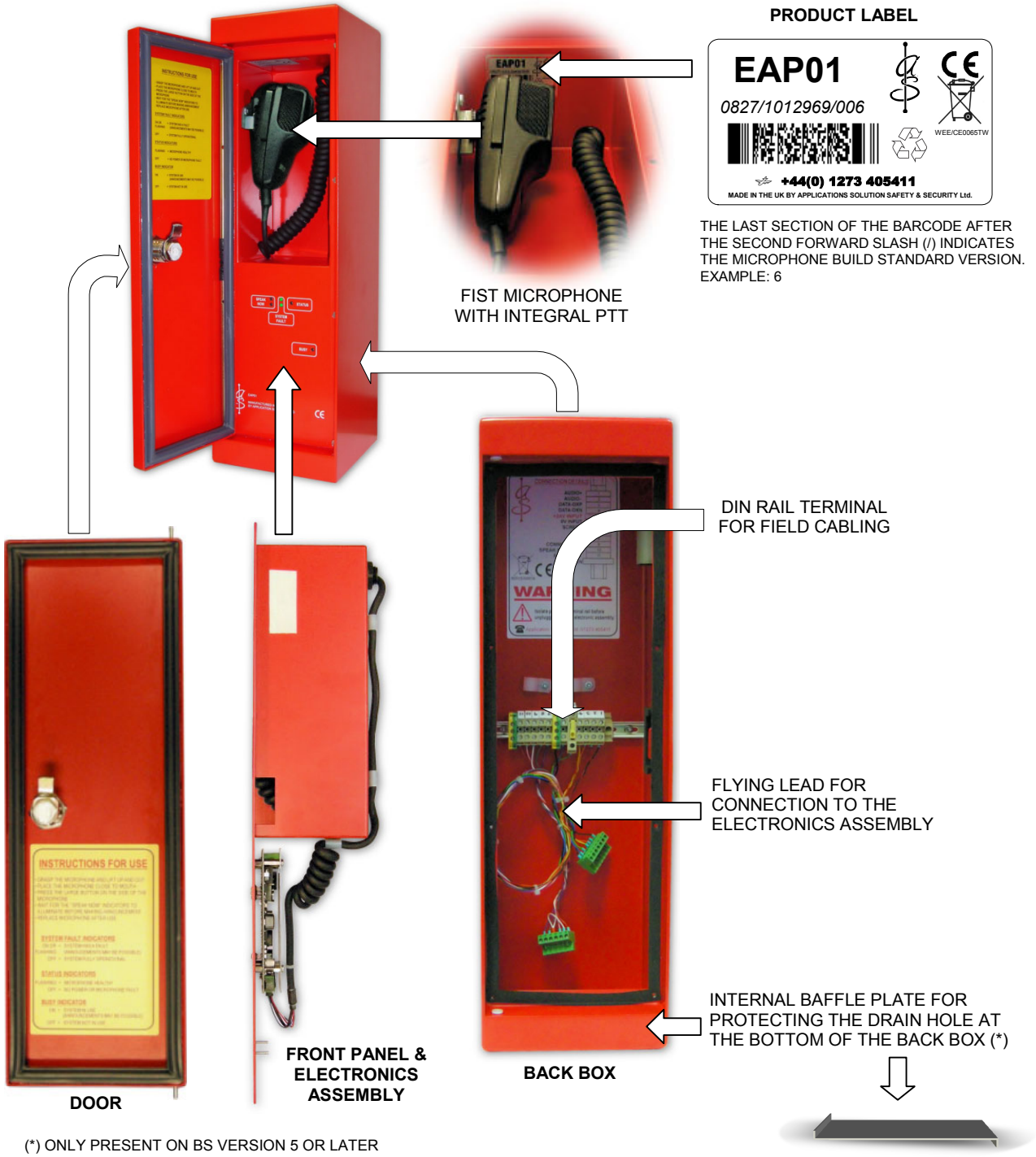
7. When the announcement is finished, release the PTT button. Once the PTT button is released the system automatically resets ready for the next announcement.

If no further announcements are to be made, then replace the Fist Microphone onto its retaining clip, and close and lock the EAP01 cabinet door.

3 Installation

3.1 EAP01 Components

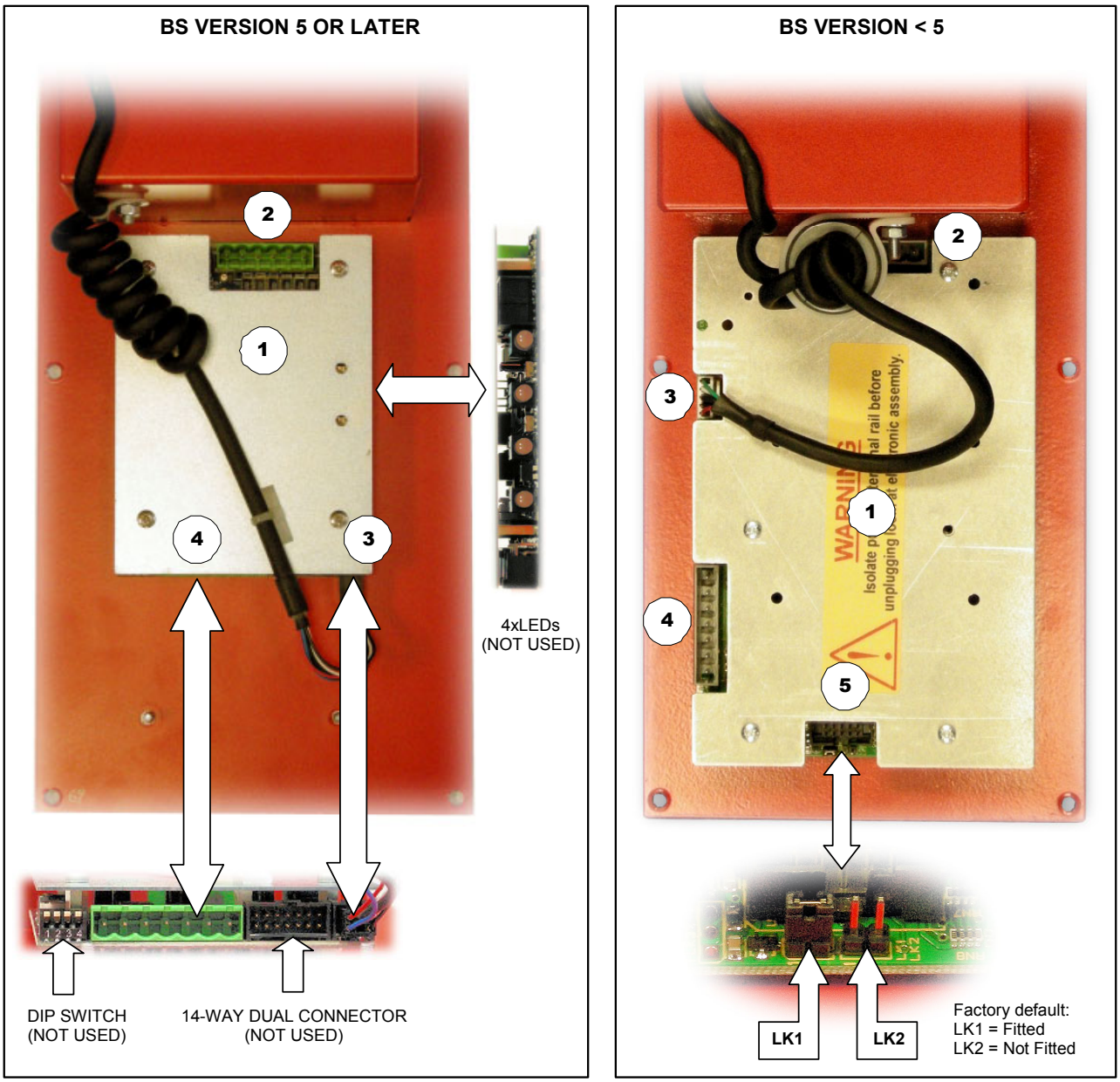
Figure 2 EAP01 Main Components


PRODUCT LABEL
EAP01
0827/1012969/006
WEE/CE0065TW
+44(0) 1273 405411
MADE IN THE UK BY APPLICATIONS SOLUTION SAFETY & SECURITY Ltd.
THE LAST SECTION OF THE BARCODE AFTER THE SECOND FORWARD SLASH (/) INDICATES THE MICROPHONE BUILD STANDARD VERSION. EXAMPLE: 6
FIST MICROPHONE WITH INTEGRAL PTT
DIN RAIL TERMINAL FOR FIELD CABLING
FLYING LEAD FOR CONNECTION TO THE ELECTRONICS ASSEMBLY
INTERNAL BAFFLE PLATE FOR PROTECTING THE DRAIN HOLE AT THE BOTTOM OF THE BACK BOX (*)
DOOR
FRONT PANEL & ELECTRONICS ASSEMBLY
BACK BOX

(*) ONLY PRESENT ON BS VERSION 5 OR LATER

- Pictures shown in Figure 2 are from EAP01 Build Standard version 5 or later, however similar main components are present in previous Build Standard versions.
- The EAP01's preferred Line Replaceable Unit (LRU) is the whole front panel and the electronics assembly.

Figure 3 EAP01 Front Panel/Electronics Assembly



1 Microphone PCB protected by a metal plate.

2 Press to Talk (PTT), Speak Now indicator, and System Fault indicators' connector.

For connection of the flying lead to the back box DIN rail terminals.

3 Fist Microphone connector.

For connection of the microphone cable.

4 Microphone and power supply connector.

For connection of the flying lead to the back box DIN rail terminals.

5 Box-header and links for programming only. These connector and links are for field firmware upgrade only, and these links should remain as supplied.

Only on EAP01 Build Standard versions prior to 5. On EAP01 Build Standard version 5 or later the programming header and links are underneath the protection plate.

3.2 Installation Requirements

3.2.1 Equipment and Tool Requirements

- The EAP01 unit.
- Suitable cable glands/conduit fixings, preferably with cable screen earthing facilities.
- A small flat bladed screwdriver.
- A 2.5 mm Allen key or driver.
- A pozidriv screwdriver (No 1).
- Suitable wire cutters, strippers and cable ferrules.
- A drill with bits and hole cutters suitable for cutting 2 mm mild steel, for the back box mounting holes and cable glands.
- Suitable fixings and tools for wall mounting.
- Sealant.

3.2.2 Cabling Requirements

3.2.2.1 Cabling to a VAR Router

Signals	Cable Description	Suggested Type
Audio	1 x 2 core, twisted, screened, 1.0 mm	Low Smoke and Fume (LSF). For BS5839 Pt 8 compliance fire rated cable (Firecell for example) must be used.
Data (for Busy indicator, optional)	1 x 2 core, twisted, screened, 1.0 mm	Low Smoke and Fume (LSF). For BS5839 Pt 8 compliance fire rated cable (Firecell for example) must be used.
Power	1 x 2 core, screened, 1.0 mm	Low Smoke and Fume (LSF). For BS5839 Pt 8 compliance fire rated cable (Firecell for example) must be used.
Other Signals	1 x 6 core, screened, 1.0 mm	Low Smoke and Fume (LSF). For BS5839 Pt 8 compliance fire rated cable (Firecell for example) must be used.
ⓘ	For cable-run limitations and alternative cable types, please refer to Application Solutions (Safety and Security) Ltd. for advice.	
⚠	For EMC compliance: • Screened cables must be used where specified. • All field cable screens must be connected to the back box. • All screen tails must be <3 cm.	

3.2.2.2 Cabling to a wall-mount Intellevac DAU or ACU

Please refer to the Intellevac System Installation Guides; see Table 5 (page 48).

3.3 Recommended Installation Procedure

> Please read and observe the "Safety and Precautions" section on page 46 of this manual.

> The EAP01 Build Standard version is indicated on the label located on the bottom part of the fist microphone enclosure as shown in Figure 2. This should be quoted in all enquiries regarding the unit.

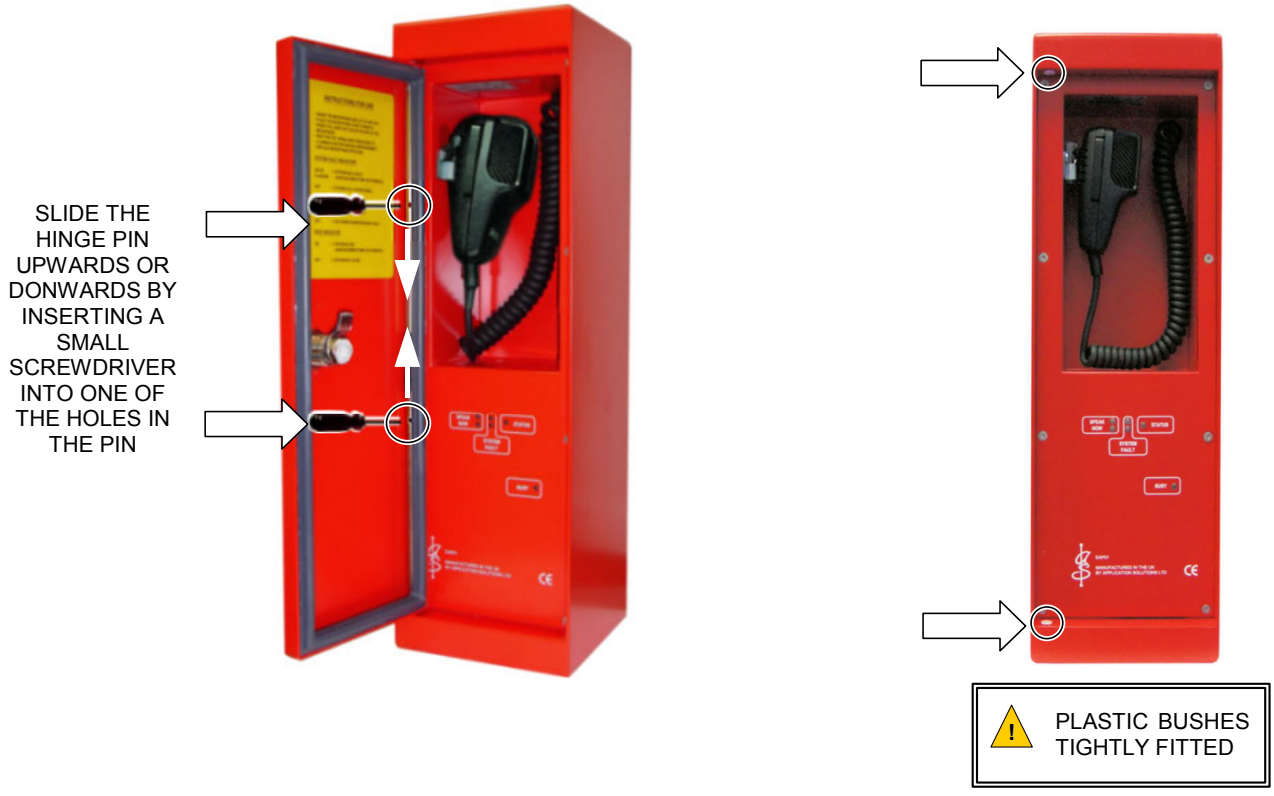
1. Open the EAP01 door using the associated KABA key.

2. Remove the EAP01 door by compressing the hinge pin; see Figure 4.

This can be done by inserting a small screwdriver into the holes in the pin, and sliding it upwards or downwards.

Take care to ensure that the hinge pin's plastic bushes in the back box are not loosened.

Figure 4 EAP01 Door Removal


SLIDE THE HINGE PIN UPWARDS OR DONWARDS BY INSERTING A SMALL SCREWDRIVER INTO ONE OF THE HOLES IN THE PIN
PLASTIC BUSHES TIGHTLY FITTED

3. The EAP01 front panel/electronics assembly is normally supplied disconnected from the back box in a separate box. When the EAP01 electronics/front panel is supplied fitted to the back box it must be removed from the back box as follows:

a. Remove the EAP01 front panel assembly by removing the 8 off M4 Allen screws.

b. Disconnect the EAP01 front panel assembly by unplugging the flying lead from the multi-way connectors on the electronics assembly, and undoing the cable loop P-clip; see Figure 5.

Figure 5 Front Panel/Electronics Assembly

c. Store the front panel assembly, door and fixing screws safely.

4. Drill holes in the back box for cable gland or conduit entry and wall mounting, according to the particular installation conditions.

a. Wall mounting holes: refer to Figure 22 for EAP01 mechanical dimensions.

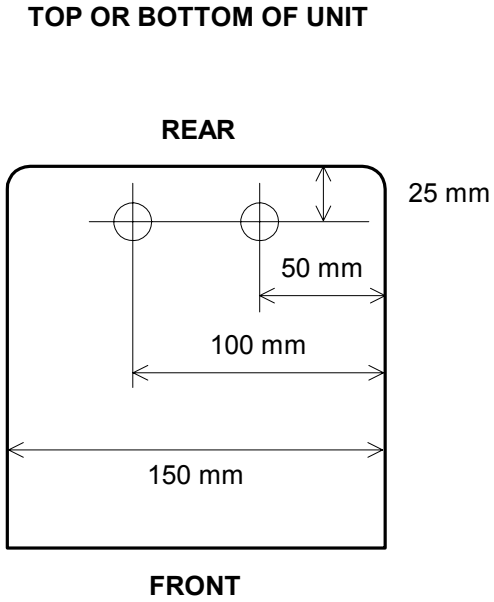
b. Cable gland or conduit entry holes: observe the following recommendations.

- The EAP01 is designed for top or bottom entry of cables.

  The recommended cable gland or conduit entry hole positions are shown in Figure 6.

  Please refer to Application Solutions (Safety and Security) Ltd. if a different cable entry positioning is required.
- Ensure that chosen cable entry locations and routing will not cause fouling when the front panel is refitted.

Figure 6 Recommended Positioning of Cable Glands or Conduits on the Top or Bottom



5. Deburr all newly drilled holes in order to prevent any damage to the cabling.

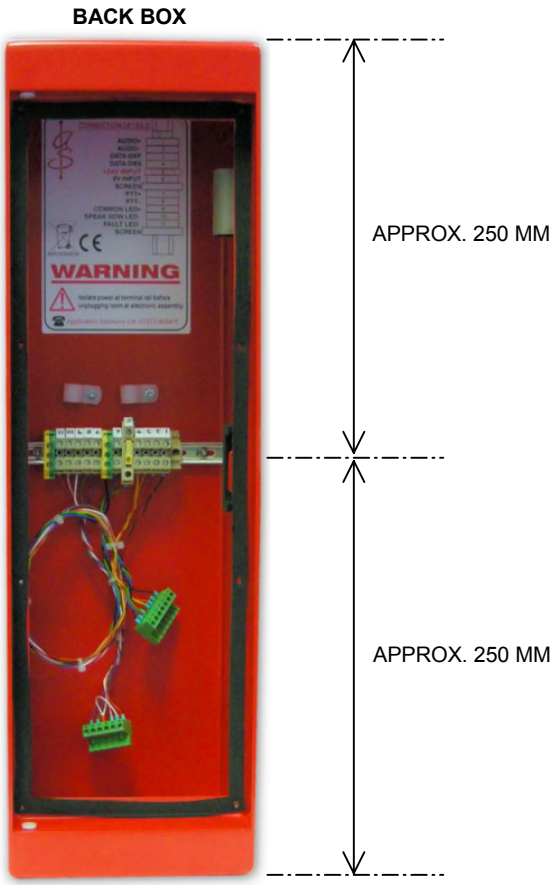
6. Mount the back box on the wall.

7. Ensure that the power supply from the central equipment rack, or wall-mount Intellevac DAU or ACU is turned off.

8. Feed the installation cables into the unit through the cable glands or conduit.

Figure 7 gives an indication of the length of the cable required for connection within the EAP01.

Figure 7 DIN Rail Terminal Position



9. Seal the mounting holes and cable entry points.

- Ensure that mounting holes and cable entry points are adequately sealed to preserve the unit's IP rating.
- A drainage hole is provided on the bottom of the back box as standard on EAP01 Version 5 or later. This hole should also be sealed only if the cable entry is through the bottom of the back box.

10. Connect the field cabling to the DIN rail.

Refer to Section "4.1 DIN Rail Terminal Allocation" (page 19).

For EMC compliance ensure that:

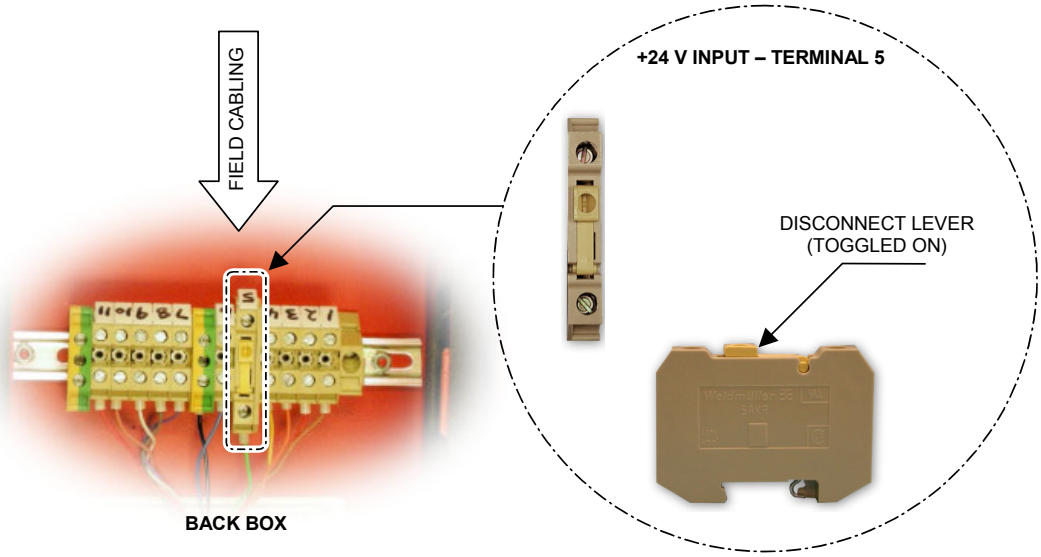
- All field cabling screens are connected to the back box. This should be via the DIN rail SCREEN terminal.
- All screen tails are <3 cm.

11. Ensure all swarf is removed from the enclosure.

12. Ensure that the power supply disconnect terminal is toggled on, if provided, as shown in Figure 8.

The power supply disconnect terminal is provided as standard on EAP01 Build Standard version 4A or later.

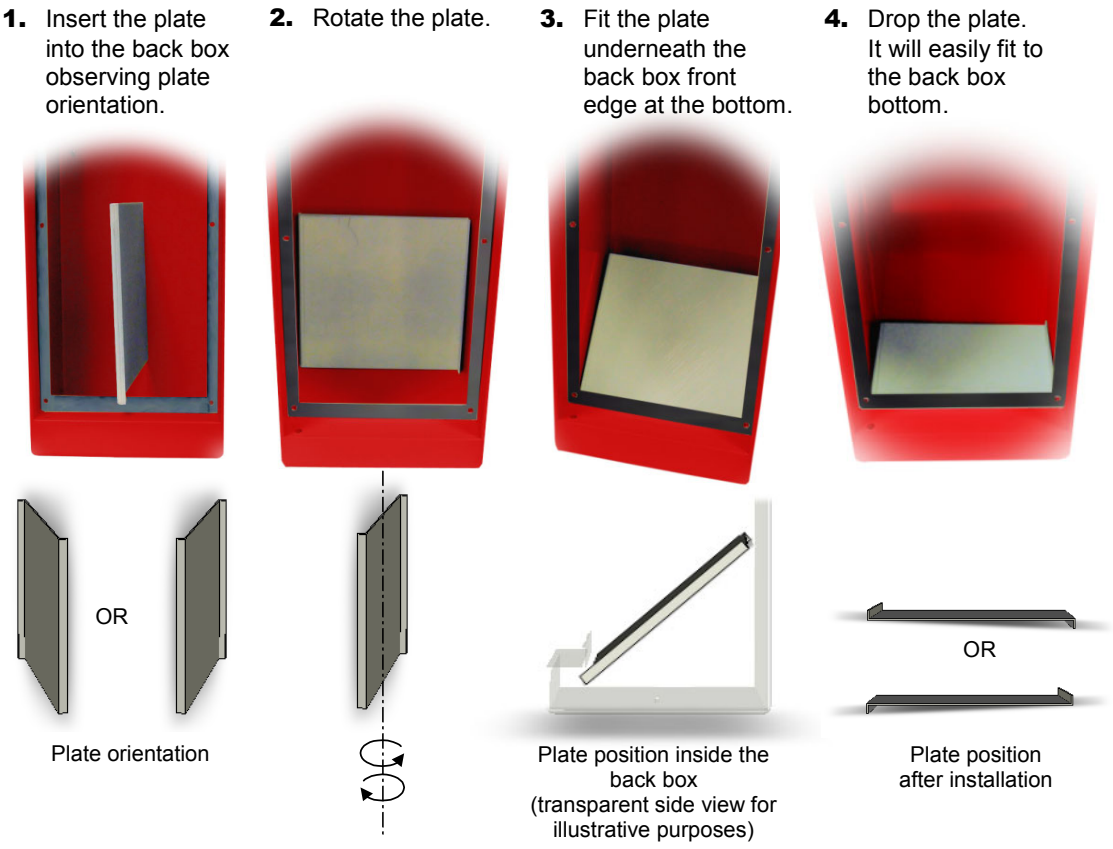
Figure 8 Power Supply Terminal



13. A baffle plate is provided as standard on EAP01 Build Standard Version 5 or later for protecting the drainage hole on the bottom of the back box.

If the baffle plate is provided, and the cable entry is not through the bottom of the back box, fit the baffle plate into the back box, as shown in Figure 9.

Figure 9 EAP01 Baffle Plate Installation


1. Insert the plate into the back box observing plate orientation.
2. Rotate the plate.
3. Fit the plate underneath the back box front edge at the bottom.
4. Drop the plate. It will easily fit to the back box bottom.
OR
OR
Plate orientation
Plate position inside the back box (transparent side view for illustrative purposes)
Plate position after installation

14. Reconnect the front panel assembly as follows, see Figure 5:

a. Plug the flying leads to the multi-way connectors on the electronics assembly.

b. Secure the flying leads to the front panel using the P-clip removed in step 3.b.

15. Fix the front panel assembly back in place using the 8 off M4 Allen screws.

16. Re-fit the door.

> ⚠ Ensure that BOTH plastic bushes are tightly fitted to the door fixing holes in order to preserve the unit's IP rating.

17. Power the unit on from the central equipment rack, or wall-mount Intellevac DAU or ACU.

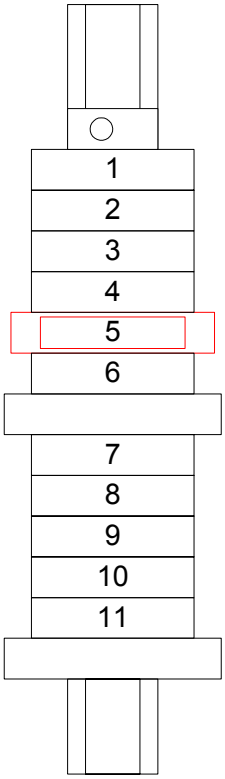
18. Commission the microphone as described in Section "5 Commissioning the EAP01" (page 25).

19. Close and lock the door using the KABA key.

4 Connections

4.1 DIN Rail Terminal Allocation

Table 1 EAP01 Terminal Allocation



Terminal	Connection	Description
1	AUDIO +	+VE Balanced Audio Output Level: 0 dBu (nominal) Output impedance: 66 Ω
2	AUDIO –	–VE As above
3	DATA-DXP	Data+ Microphone control data EIA RS485 19200 baud Required for optional Busy indicator only.
4	DATA-DXN	Data– As above Required for optional Busy indicator only.
5	+24V INPUT	18 V – 40 V Supply Input
6	0V INPUT	Supply 0V
	SCREEN	Connection for cable screen (bonded to DIN rail)
7	PTT +	Connection from Press To Talk button (fitted internally with 6k8/470 Ω resistors)
8	PTT –	As above
9	COMMON LED +	Connection to Anode of Speak Now and System Fault indicators
10	SPEAK NOW LED –	Connection to Cathode of Speak Now indicators (built-in series resistor)
11	SYSTEM FAULT LED –	Connection to Cathode of System Fault indicators (built-in series resistor)
	SCREEN	Connection for cable screen (bonded to DIN rail)

4.2 Connection Diagrams

For BS5839 Pt.8 compliance the EAP01 should be connected to Router's inputs 1 or 2, which operate in the All-Call failsafe override mode in the event of processor failure.

The Router can be either a rack mounted or a wall mounted ASL Voice Alarm and Public Address system:

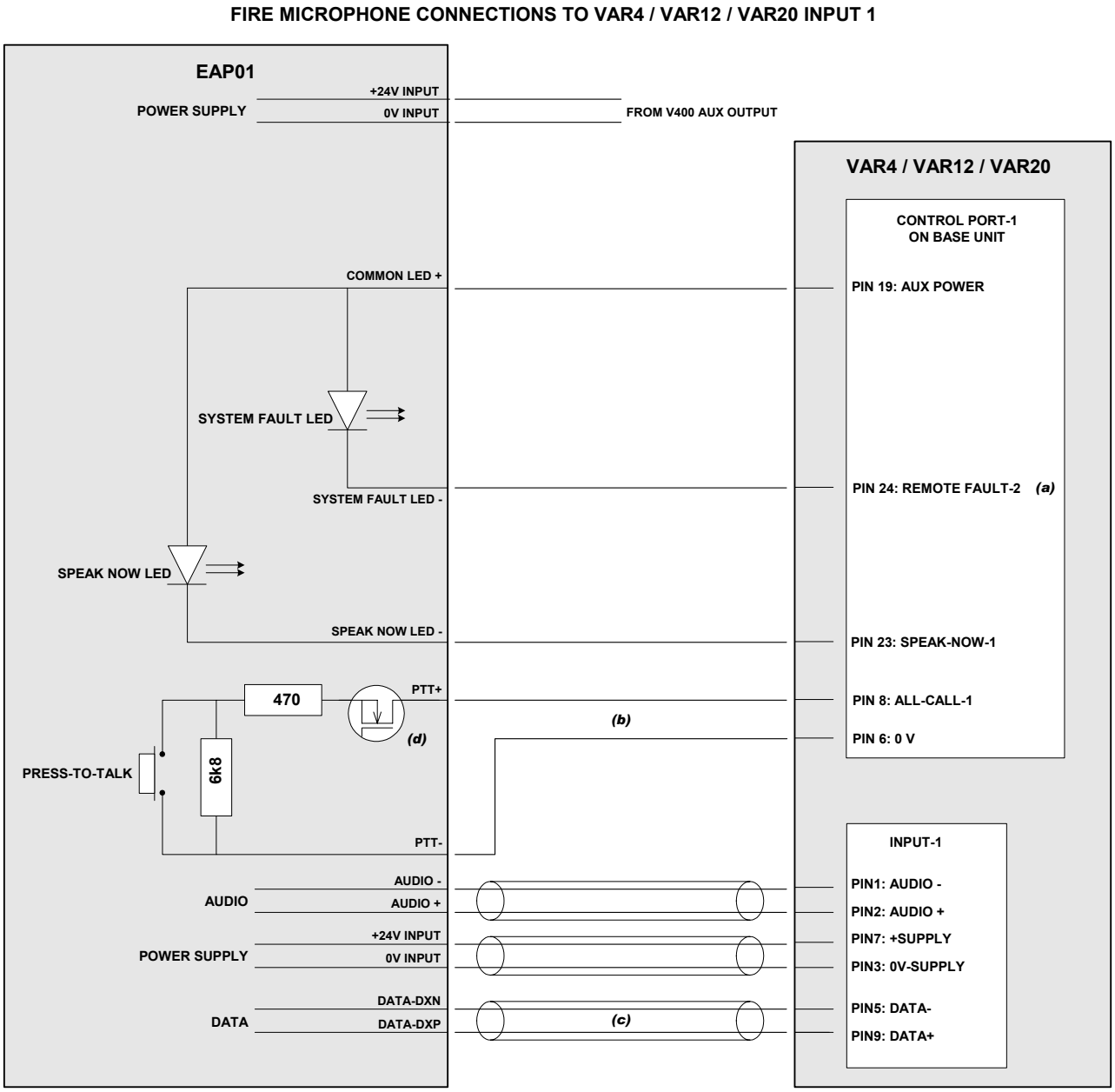
- Rack mounted system: VAR4, VAR12, VAR20, VAR8, or VAR8-ACU
- Wall mounted system: DAU (Distributed Amplifier Unit), or ACU (Audio Control Unit)

4.2.1 Connection to VAR4/VAR12/VAR20 Input 1

The following diagram shows the connection of the EAP01 to the VAR4/VAR12/VAR20's Mic/Line input 1 as Fire Microphone.

Refer to Section "3.2.2.1 Cabling to a VAR Router" (page 12) for recommended cabling.

Figure 10 EAP01 Connection to VAR4/VAR12/VAR20 Input 1



(a) Remote Fault Output to be programmed as 'Remote Fault Active Indicator' at the Router.

(b) PTT Function Test:
Measure the voltage between **PTT+** and **PTT-**.
Make sure that the microphone is powered, and polarity of PTT connections is correct.
PTT+ to **PTT-** Voltage ranges:
PTT INACTIVE = 2V8 to 3V2
PTT ACTIVE = 0V4 to 0V5

(c) Required for optional Busy indicator only.

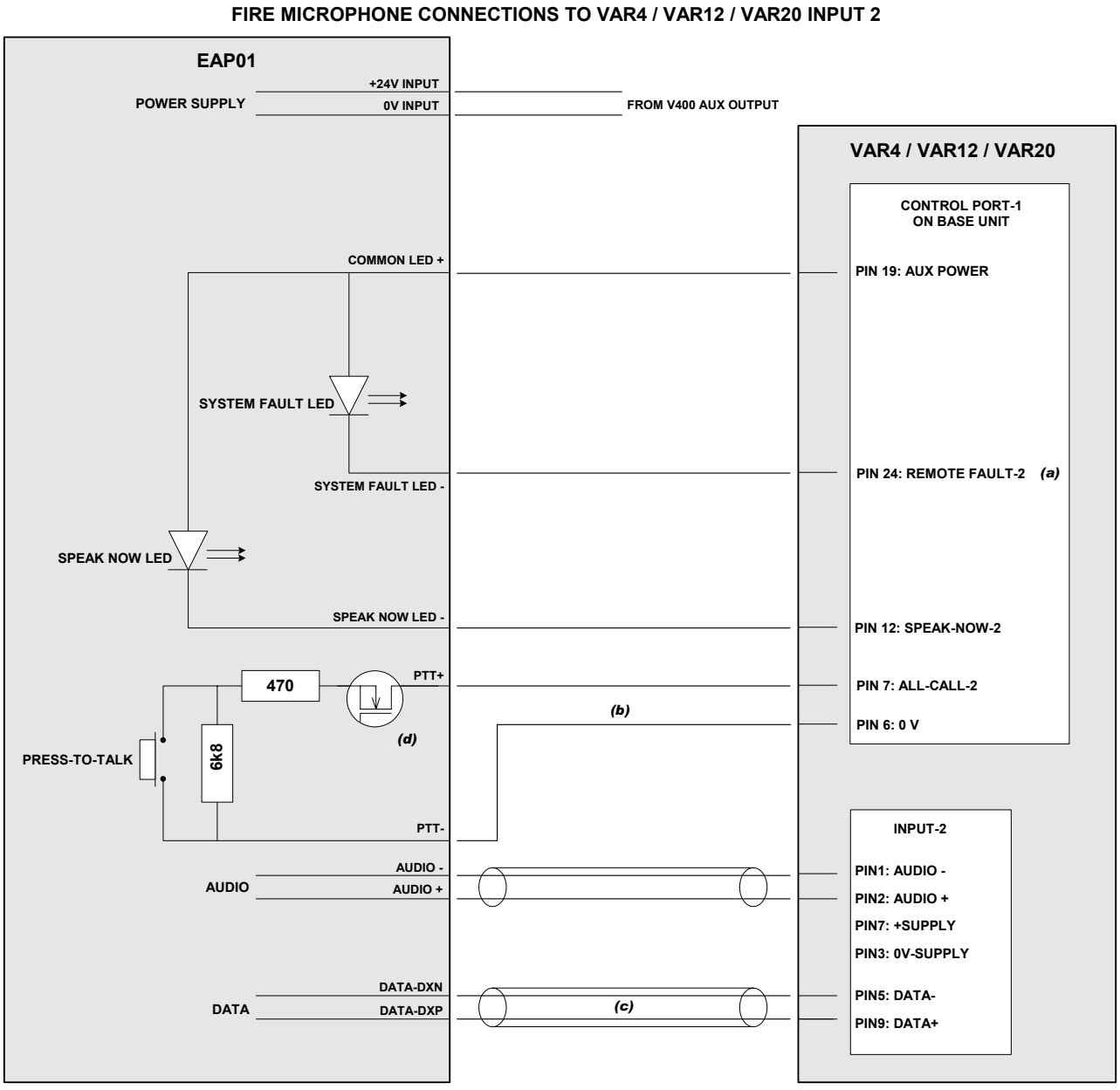
(d) Transistor is not present in EAP01 Build Standard Version 5 or later.

4.2.2 Connection to VAR4/VAR12/VAR20 Input 2

The following diagram shows the connection of the EAP01 to a VAR4/VAR12/VAR20's Mic/Line input 2 as a Fire Microphone.

Refer to Section "3.2.2.1 Cabling to a VAR Router" (page 12) for recommended cabling.

Figure 11 EAP01 Connection to VAR4/VAR12/VAR20 Input 2



(a) Remote Fault Output to be programmed as 'Remote Fault Active Indicator' at the Router.

(b) PTT Function Test:
Measure the voltage between **PTT+** and **PTT-**.
Make sure that the microphone is powered, and polarity of PTT connections is correct.
PTT+ to **PTT-** Voltage ranges:
PTT INACTIVE = 2V8 to 3V2
PTT ACTIVE = 0V4 to 0V5

(c) Required for optional Busy indicator only.

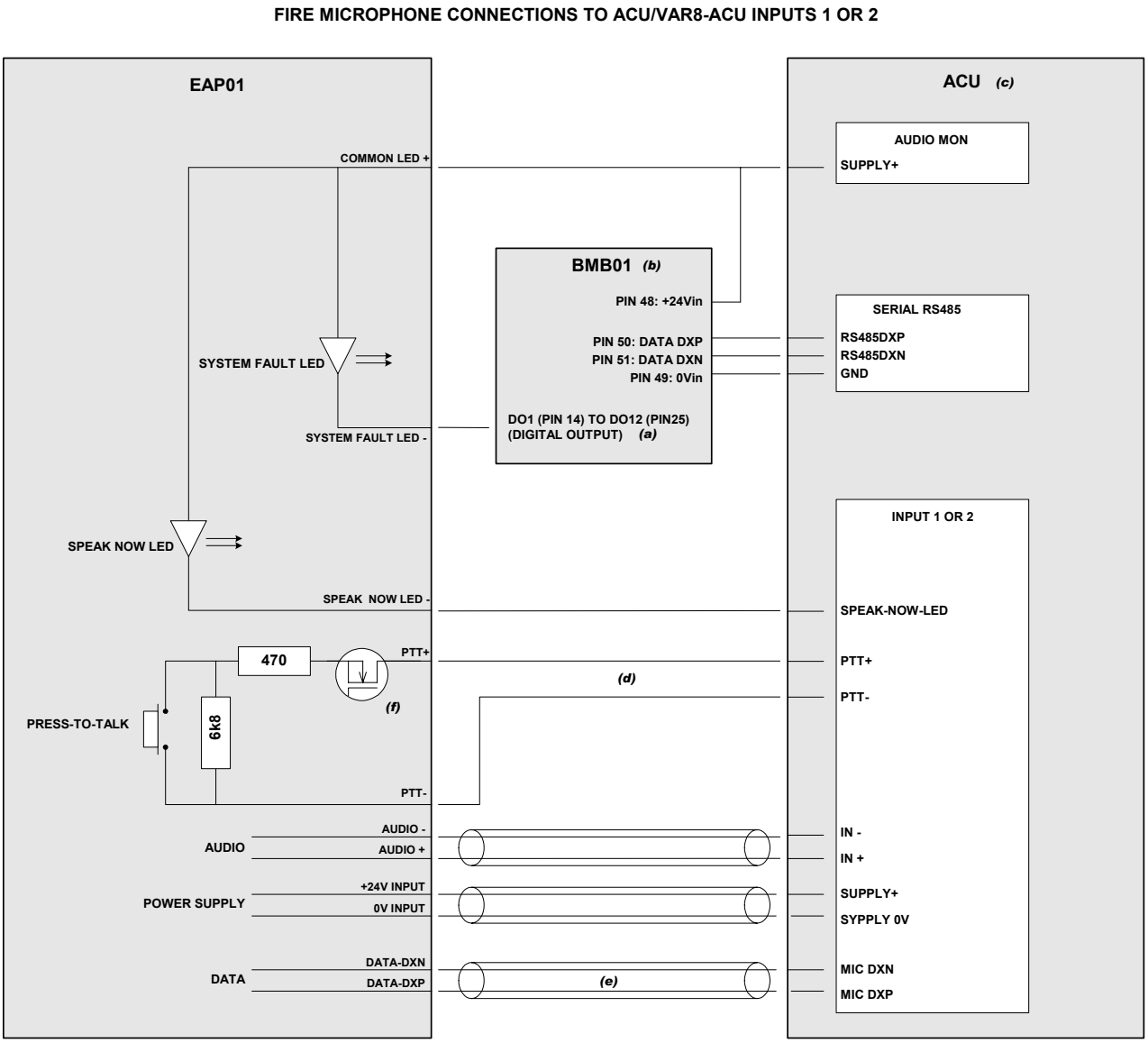
(d) Transistor is not present in EAP01 Build Standard Version 5 or later.

4.2.3 Connection to ACU or VAR8-ACU Inputs 1 or 2

The following diagram shows the connection of the EAP01 to an ACU's or VAR8-ACU's Mic/Line inputs 1 or 2 as a Fire Microphone.

Please refer to the ACU or VAR8-ACU Installation Guides [Table 5, page 48] for cabling recommendation.

Figure 12 EAP01 Connection to ACU/VAR8-ACU Inputs 1 or 2



(a) BMB01 digital output to be programmed for 'Fault Indication' at the ACU.

(b) The BMB01 is normally connected to the ACU's RS485 port as shown in this diagram. Note that the ACU also supports BMB01 units on its Mic/Line inputs, in which case the DATA and power supply connections are to the MIC Data and SUPPLY terminals of the selected Mic/Line inputs.

Refer to the BMB01 installation guide and the specific ACU installation guide for further details.

(c) The ACU can be either the Intellevac ACU or the VAR8-ACU.

(d) PTT Function Test:

Measure the voltage between **PTT+** and **PTT-**.

Make sure that the microphone is powered, and polarity of PTT connections is correct.

PTT+ to **PTT-** Voltage ranges:

PTT INACTIVE = 2V8 to 3V2

PTT ACTIVE = 0V4 to 0V5

(e) Required for optional Busy indicator only.

(f) Transistor is not present in EAP01 Build Standard Version 5 or later.

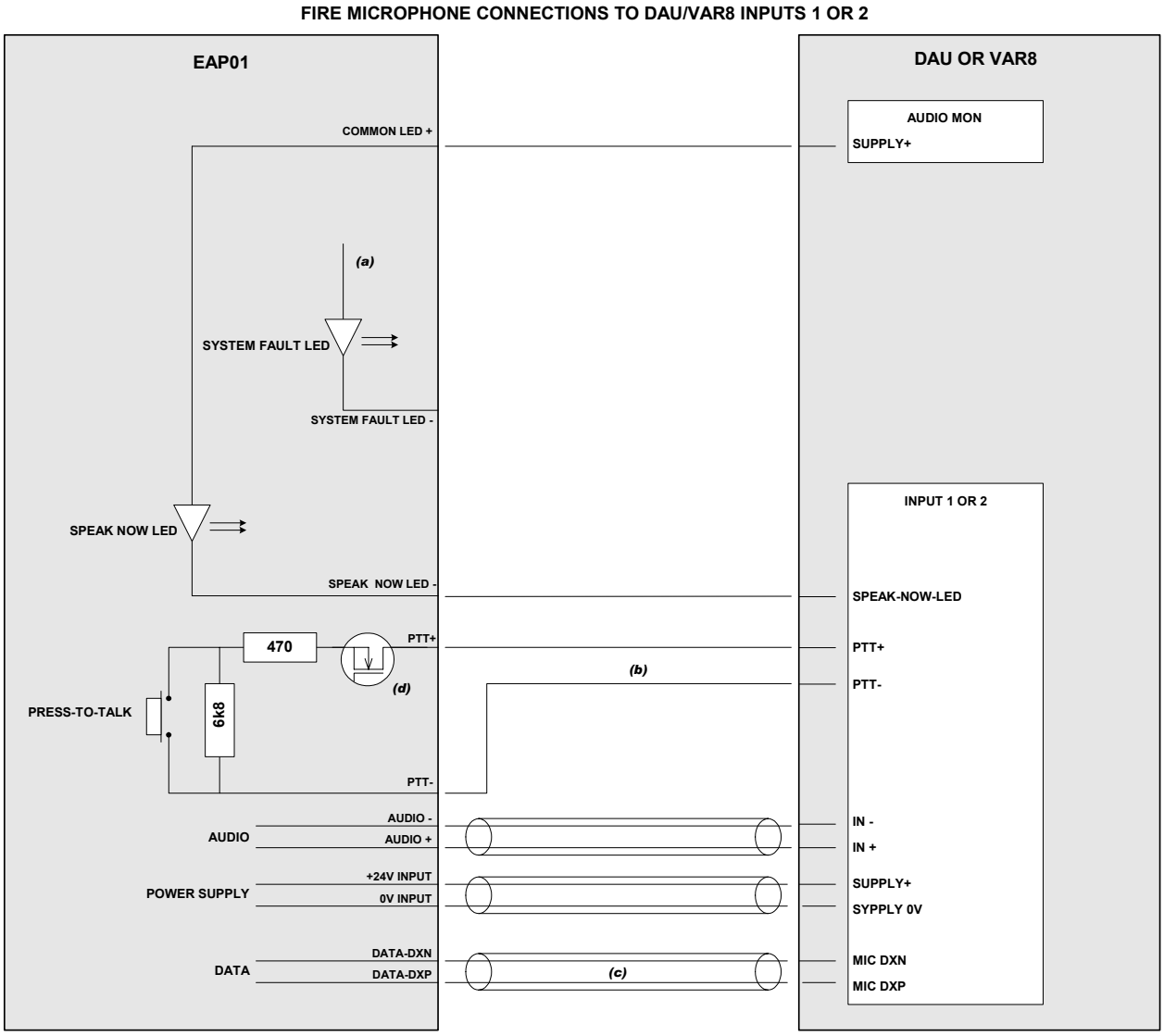
4.2.4 Connection to DAU or VAR8 Inputs 1 or 2

The following diagram shows the connection of the EAP01 to a DAU's or VAR8's Mic/Line inputs 1 or 2 as a Fire Microphone.

Please refer to the DAU and VAR8 Installation Guides [Table 5, page 48] for cabling recommendation.

> The system fault indication relay output on the DAU or VAR8 is normally used by the Fire Alarm Panel. Therefore the System Fault LED will normally not be driven by the DAU or the VAR8. Please contact ASL for further details.

Figure 13 EAP01 Connection to DAU/VAR8 Inputs 1 or 2



(a) The system fault indication relay output on the DAU or VAR8 is normally used by the Fire Alarm Panel. Therefore the System Fault LED will normally not be driven by the DAU or the VAR8. Please contact ASL for further details.

(b) PTT Function Test:
Measure the voltage between **PTT+** and **PTT-**.
Make sure that the microphone is powered, and polarity of PTT connections is correct.
PTT+ to **PTT-** Voltage ranges:
PTT INACTIVE = 2V8 to 3V2
PTT ACTIVE = 0V4 to 0V5

(c) Required for optional Busy indicator only.

(d) Transistor is not present in EAP01 Build Standard Version 5 or later.

5 Commissioning the EAP01

For operational details refer to your system specific documentation; see Table 5 (page 48).

The following details are correct for the current VAR Router, DAU, and ACU software versions at the time of publication:

- VAR Router: CP 4.1.471
- Intellevac DAU: CP V1.5.124
- Intellevac ACU: CP V1.5.115
- VAR8: CP V1.5.124
- VAR8-ACU: CP V1.5.115

If any difficulties are encountered, then refer to Application Solutions (Safety and Security) Ltd. for advice quoting the software version of your system. The software version is displayed via the **Configuration→System→Misc→Software** menu.

Configure the EAP01 from the Router Configuration Tool, or system front panel as described in the following sections.

5.1 Obtaining the Router's Input Number

Check the system design documentation to find the Router audio input number being used for the EAP01.

This input number will be required throughout this commissioning procedure, being referred as *nn*.

For BS5839 Pt.8 compliance the EAP01 should be connected to Router's inputs 1 or 2, which operate in the All-Call failsafe override mode in the event of processor failure.

5.2 Configuring the Microphone Type

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn* – *input name*>

Where *nn* is the Router input number found in Section "5.1 Obtaining the Router's Input Number" (page 25).

Configure the EAP01 as **Fire Microphone**.

5.3 Configuring the Microphone Audio Parameters

5.3.1 Microphone Input Gain

VAR4/12/20 Menu: **Configuration→System→Router→Inputs→Mic/Line**
→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→PreAmp**

DAU/ACU/VAR8/VAR8-ACU Menu: **Configuration→System→Router→Inputs→Mic/Line**
→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→Input**

Possible values: –63dB to 0dB (1dB steps)
System default configuration: –14 dB on VAR4/VAR12/VAR20
–20 dB on ACU and VAR8-ACU

The input gain of each audio input should normally be set so that all inputs are balanced, and give the same output level on any one output. The output gains are then balanced to give the same gain on all outputs.

1. Initially ensure that the microphone input gain is set to its default value of:

- VAR4/12/20: –14 dB
- DAU/ACU/VAR8/VAR8-ACU: –20 dB

2. Ensure that the line sensitivity (**Sens.)** is set to its default option, which is 'Line'.

This setting is only available in the VAR4/12/20 Router.

5.3.2 Microphone Surveillance Tone Detection

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>
→Fire Microphone→Audio→Surv

Possible values: –40dB to 0dB (1dB steps)
System default configuration: '–40dB'

If this surveillance is enabled, then in the absence of a surveillance tone, an Input Audio fault will be raised and logged. This would indicate that the microphone audio connection is broken, or is a poor connection.

For BS5839 compliance the input surveillance MUST be enabled on Fire Microphone inputs.

The detection threshold level is adjustable as follows.

1. Configure **Mode=LF** and **Level (dB)=–40**, enabling the Router to detect the presence of the low frequency surveillance tone that is generated by ASL microphones.

2. Clear any existing faults by pressing the FAULT CLEAR button on the system front panel.

3. Make sure that no fault is reported for the EAP01. Any fault reported by the EAP01 at this stage should be cleared; see Section "6 Fault Finding" (page 34).

4. Raise the surveillance tone level slowly (1 dB step) from –40 dB until the "IPXX AUDIO INPUT" fault is reported. Where XX is the Mic/Line input to which the EAP01 is connected.

5. Set the surveillance tone level to 4 dB below the level that caused the fault to be reported.

   E.g. if a –18 dB level causes the fault, then set the surveillance tone level to –22 dB.

6. Make sure that no fault is reported for the EAP01.

5.3.3 Microphone Relative Output Gain

VAR4/12/20 Menu: **Configuration→System→Router→Inputs→Mic/Line**

→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→O/pGains**

DAU/VAR8 Menu: **Configuration→System→Router→Inputs→Mic/Line**

→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→Output**

Possible values: –40dB to 0dB (1dB steps)

System default configuration: '0dB'

Normally all input gains will be set to 'balance' each of the inputs, and the output gain will be set to give the required level at each output. However, if any input is desired to have a different gain for a particular output or outputs, then these inputs can be given a different gain relative to each appropriate output. This is the 'Relative Output Gain' setting, and can be used to e.g. avoid feedback for a microphone which is located in one of its output zones.

- This setting is not required on Audio Control Units (ACU).
- Before carrying out this adjustment the input gains of all audio sources and the output gains for all zones and other audio outputs must be set-up to 'balance' each input and output.

Ensure that the Relative Output Gain for each output is set to the default level (0 dB), and then for each output in the system configure the Relative Output Gain as follows:

1. Disable any ANS for the output associated with the EAP01, by setting it to 'Off':

   Menu: **Configuration→System→Router→Outputs→**<O/P #*nn – output name*>**→ANS**

   nn is the output number.

   Note that to simplify this process the Router displays the output name, and that the output names may have been changed to zone names in the **Configuration→System→Router→Outputs** menu.

2. Ensure that the Night Time Volume Control is inactive, by setting it to 'Off':

Menu: **Configuration→System→Router→Noise→Off**

3. Ensure that all Volume Controls are set to maximum volume, i.e., control at position '11'.

4. Make broadcasts from the EAP01 microphone and confirm that they are free of acoustic feedback, and are playing at the required volume level.

5. If feedback is encountered or volume adjustment is required in a particular zone (or one or more of the group of zones) even though all inputs have been balanced, and all outputs have been set to the correct volume for all other inputs, then reduce the Relative Output Gain for the associated output until the feedback is eliminated and the volume is at the required level.

VAR4/12/20 Menu: **Configuration→System→Router→Inputs→Mic/Line**

→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→O/pGains**

DAU/ACU/VAR8/VAR8-ACU Menu: **Configuration→System→Router→Inputs→Mic/Line**

→<I/P #*nn – input name*>**→Fire Microphone→Audio→Gain→Output**

6. Re-enable any ANS for the output associated with the EAP01, by setting it to 'On':

Menu: **Configuration→System→Router→Outputs→**<O/P #*nn* – OUTPUT *nn*>**→ANS**

7. If required, activate the Night Time Volume Control, by setting it to 'On':

Menu: **Configuration→System→Router→Noise→On**

8. Set all Volume Controls to the required volume.

5.3.4 Microphone Equalisation

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>

→Fire Microphone→Audio→EQ

Possible values:	HF (High Frequency) section:	–12dB to +12dB (1dB steps)
	MID (Mid Frequency) section:	–12dB to +12dB (1dB steps)
	LF (Low Frequency) section:	–12dB to +12dB (1dB steps)
System default configuration:	'0dB'	

A 3-band equaliser is provided on Mic/Line inputs in order to balance the input tone. This equaliser has a shelving HF (treble) adjustment, shelving LF (bass) adjustment, and a fixed MID section adjustment.

A High Pass filter is also configurable. This would typically be used on microphone inputs to prevent excessive 'pop' noise.

Configure the 3-band equaliser and the High Pass filter as required.

This setting should not be used to set the equalisation for a particular output. Outputs have their own equaliser setting.

5.3.5 Microphone Fade Up and Down Times

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>

→Fire Microphone→Audio→Fade

Possible values: 00 to 50 (Time in tenths of a second. Divide by ten for the time in seconds.)

System default configuration: 'Up=00' and 'Down=00'

It is possible to specify a fade up and fade down time for each Mic/Line input or Music input. This can be set to provide the desired changeover fading, e.g. when a broadcast interrupts background music, or a lower priority broadcast.

This is typically used on background music where a slow fade-up, in particular, is desirable.

The Fade Down time is:

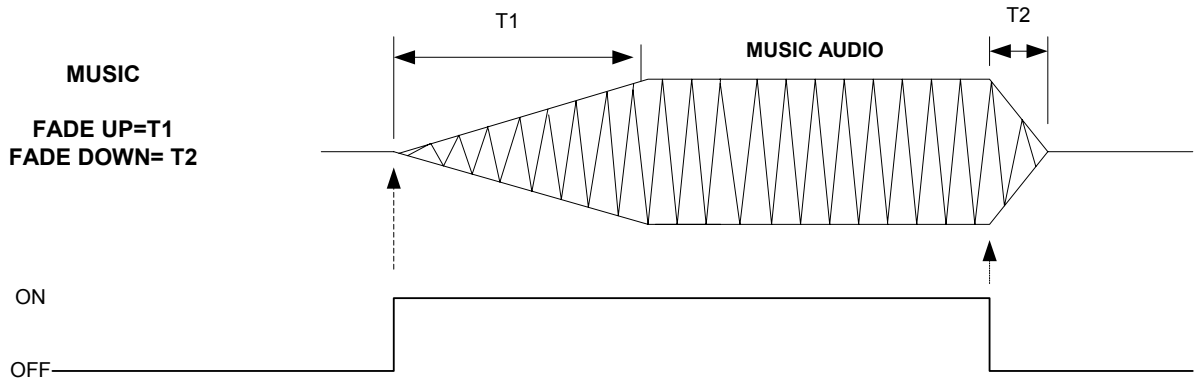
- The time it takes for the signal to fade down when turned off (un-routed);
- The time it takes for the signal to fade down before an overriding broadcast is made in its place

The Fade Up time is the time the signal takes to fade up when:

- Turned on (routed);
- Override removed.

The diagram in Figure 14 illustrates the sequence of events during the enabling and disabling of a single audio source (e.g. background music).

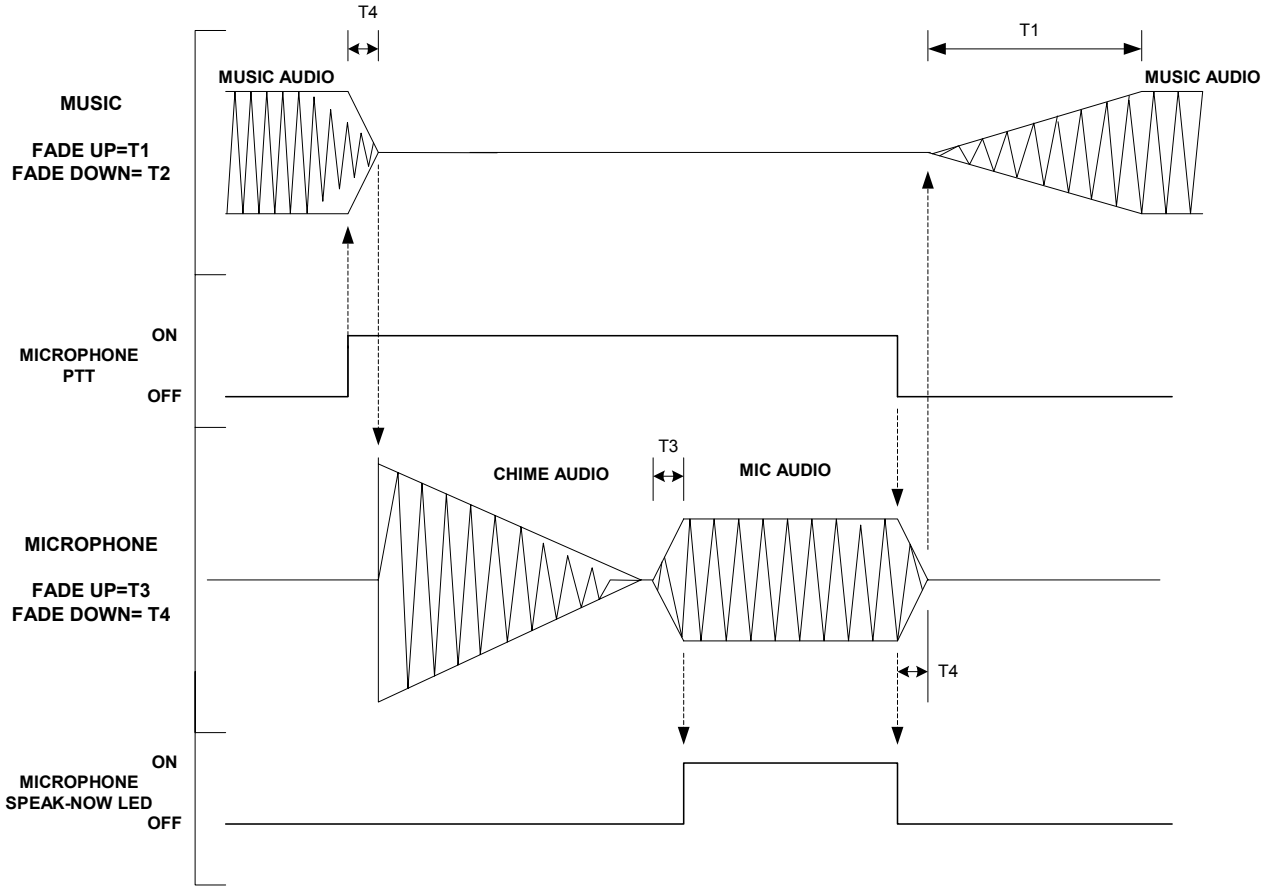
Figure 14 Sequence of Events for Single Audio Source



The diagram in Figure 15 illustrates the sequence of events during the override of a background music source by a Paging Microphone with chime.

Note that the background music Fade Down time (T2) is not used in this instance. Instead the microphone Fade Down time (T4) is used to fade out the background music before the microphone broadcast starts, as well as to fade out the microphone at the end of its broadcast.

Figure 15 Sequence of Events for Paging Microphone Chime Overriding a Background Music



Configure the microphone signal fade up and down times as required.

> ⚠ It is important for Fire Microphones, such as the EAP01, to be able to override other sources quickly. Therefore Fire Microphones should be set-up for a short Fade Down time.

5.3.6 Microphone Pre-Annoucement Chime

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P *#nn – input name*>
→Fire Microphone→Audio→Chime

Possible chime level:	–40dB to 0dB (1dB steps)
Possible chime types:	‘Chime-1’ (one chime)
	‘Chime-2’: two chimes
	‘Chime-3’: three chimes
	‘Off’: none
System default configuration:	‘Type=Off’ and ‘LEVEL (dB) –12’

A pre-announcement chime may be configured to any Mic/Line input. If configured, then the chime will be triggered when the input source is routed. However the actual audio input will only be routed when the chime is complete. The chime level is also configurable.

5.4 Configuring the Microphone Control Parameters

5.4.1 Microphone Priority

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>
→Fire Microphone→Ctrl→Pri

Possible priority levels:	01 to 19 (01 is the highest priority)
System default configuration:	Fire or Zoned Fire Microphone on input 1 – '01'
	Fire or Zoned Fire Microphone on input 2 – '02'
	Paging Microphone on VAR4/VAR12/VAR20 – '07'
	Paging Microphone on DAU/VAR8/ACU/VAR8-ACU – '11'

The input priority is used to resolve conflicts when two or more inputs try to broadcast to the same output. In this case the input with the highest priority will be able to broadcast to this particular output, and the others will not. The priority also determines if the user may be overridden by other users during broadcast to an output.

Note that when the microphone is connected to an ACU input, the ACU uses the priority to arbitrate the use of the network audio channels. Each slave unit (DAU or VAR Router) in the network then uses the priority locally assigned to this ACU input for local arbitration as described above.

If an announcement from a Fire Microphone is overridden by a higher priority Fire Microphone, the lower priority Fire Microphone will be restored immediately after the higher priority Fire Microphone has completed the announcement.

Set the priority of the microphone input as required. Consult the system design documentation to find the correct priority.

Care should be taken in ensuring that Fire Microphones, and Alarm and Emergency DVAs have a high priority, and non-emergency sources, such as non-emergency DVAs, Paging Microphones, and music sources, have low priorities. This is to ensure that the emergency inputs can override normal inputs.

The system default priorities are set to help this by ensuring that by default Fire Microphones have the highest priorities in the system: priority '01' being assigned to a Fire Microphone connected to input 1, and priority '02' to a Fire Microphone connected to input 2.

5.4.2 Microphone Class

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>
→Fire Microphone→Ctrl→Pri→Class

Possible values: 'High Priority Emergency', 'Low Priority Emergency', or 'Non Emergency'

System default configuration: VAR4/12/20: 'Non Emergency'

DAU/ACU/VAR8/VAR8-ACU: 'High Priority Emergency'

- On VAR4/VAR12/VAR20:

  The emergency class is used provide a visual indication when an emergency DVA message is playing, and to control the VAR Router's Remote Fault Output, when this is configured as 'Emergency DVA Active Indicator', as follows:

  – The "VOICE ALARM" message flashes on the left side of the LCD display, and the Remote Fault Output is activated if an emergency audio input such as ALERT or EVACUATE DVAs is routed to any output.

  – The LCD display shows standard displays, and the Remote Fault Output is not activated if all outputs are routed to non-emergency audio inputs such as Paging Microphones or music, or are not routed.

> ⓘ Incorrect changes to this setting may result in an inappropriate indication of the emergency DVA message status by the LCD display, and the Remote Fault Output when this is configured for 'Emergency DVA Active Indicator'.

- In an Intellevac Network:

  The emergency class is also used by the ACU and any Zoned Fire Microphones connected to it to indicate the emergency DVA message status of any zone group which is configured for a Zone Select button. This indication is done by control of the zone's 'Busy' and 'Select' LEDs, as described in Section "5.4.4 Busy and Select Indication LEDs Mode (ACU and VAR8-ACU only)" (page 32).

  In an Intellevac Network, the Mic/Line input class should be set to 'Non Emergency' regardless of microphone type in order to provide the appropriate indication of the emergency DVA message status on the ACU's front panel.

5.4.3 Microphone Name

Menu: **Configuration→System→Router→Inputs→Mic/Line→**<I/P #*nn – input name*>
→Fire Microphone→Name

Possible values: alphanumeric string of up to 12 characters

System default configuration: The default input name may vary according to software version.

nn is the Router input number found in Section "5.1 Obtaining the Router's Input Number" (page 25).

This name is for reference in the Router settings only; however, we recommend that it be modified in order to facilitate the system configuration and operation. It can be any alphanumeric string of up to 12 characters.

5.4.4 Busy and Select Indication LEDs Mode (ACU and VAR8-ACU only)

Menu: **Configuration→System→Router→Inputs→Mic/Line→<I/P #*nn* – *input name*>**

→<Fire Microphone>→Ctrl→LEDs

Possible values: 'Busy Standard', or 'Busy Class'

System default configuration: 'Busy Class' on Zoned Fire Microphones

'Busy Standard' on Fire, Paging, and Single Button Microphones

Normally a Zoned Fire Microphone (such as the standard SMC01 units) connected to an ACU (Audio Control Unit) is configured to drive the 'Busy' and 'Select' LEDs of a zone select button to indicate the emergency DVA message status of the zone (either one or more of the group of zones controlled by this button). Whereas Fire Microphones (such as the EAP01 and FMS1) are configured to drive these LEDs in the standard mode, i.e., to indicate the zone 'Busy' and 'Select' conditions in similar fashion to when the microphone is connected to a VAR Router. These modes are detailed as follows.

- 'Busy Class' mode:

  The 'Busy' and 'Select' LEDs of a zone select button indicate the emergency DVA message status of the zone (either one or more of the group of zones controlled by this button) configured for this zone select button according to the emergency class of the currently routed audio sources.

  The 'Busy' and 'Select' LEDs are driven as follows:

  - The 'Busy' LED is turned ON continuously if any output in the group configured for the button is connected to an input that has been configured as a High Priority Emergency source.

    The 'Select' LED is turned ON continuously.
  - The 'Busy' LED flashes ON and OFF repeatedly if any output in the group configured for the button is connected to an input that has been configured as a Low Priority Emergency source, and no output in the group is connected to a High Priority Emergency source.

    The 'Select' LED is turned ON continuously.
  - The 'Busy' LED is turned OFF if any output in the group configured for the button is connected to an input that has been configured as a Non Emergency Priority source, and no output in the group is connected to a High or Low Priority Emergency source.

    The 'Select' LED is turned ON continuously.
  - The 'Busy' LED is turned OFF if all outputs in the group configured for the button are not connected to any input.

    The 'Select' LED is turned OFF.

  Normally the emergency class is set-up as follows:

  - EVACUATE DVA: High Priority Emergency
  - ALERT DVA: Low Priority Emergency
  - Other audio sources (microphone, auxiliary DVAs, music): Non Emergency

  Therefore the ACU (or the Zoned Fire Microphone) will show all evacuation zones with a steady 'Busy' LED, all alert zones with a flashing 'Busy' LED, and all other zones without the 'Busy' LED lit.

  This is the default setting for Zoned Fire Microphones.

- 'Busy Standard' mode:

  The 'Busy' LED of a zone select button is turned ON continuously to indicate that the zone (either one or more of the group of zones controlled by this button) configured for this zone select button is already in use by another input, and the 'Select' LED indicates the zone selection state.

  The input emergency class has no effect on the LED indication.

  This is the default setting for Fire Microphones (such as the FMS1), Single Button Microphones, and Paging Microphones.

The 'Select' LED is not present on the EAP01. Therefore ensure that the EAP01 is configured to the 'Busy Standard' mode in order that the 'Busy' LED (if connected) is driven to indicate the zone status.

6 Fault Finding

Table 2 EAP01 Faults – VAR4/12/20

Operational Fault Symptom	Fault Description	Fault Code(s) Reported and Logged at the VAR4/12/20	Other Indication	Suggested Action
Total loss of live audio announcement from a single microphone, though the microphone still appears to be functional.	Input audio surveillance	IPXX AUDIO INPUT XX=01 to 20	Mic Status LED constantly ON or OFF	• Check audio cabling or power supply cabling between microphone and Router. • Replace microphone console. • Replace Router.
Total loss of live audio announcement from a single microphone, though the microphone still appears to be functional.	Mic capsule fault	IPXX MIC CAPSULE XX=01 to 20	Mic Status LED constantly ON or OFF	• Check continuity of microphone capsule and any associated wiring, if faulty then replace capsule if possible. • Replace microphone console. • Replace Router.
Total loss of all functionality on a single microphone.	Mic comms fault	IPXX MIC COMMS XX=01 to 20	Mic Status LED constantly ON or OFF	• Check data cabling or power supply cabling between microphone and Router. • Replace microphone console. • Replace Router.
No operational failure on initial fault report. Total loss of all functionality on a single microphone if subsequent fault reports within one hour.	Mic CPU reset	IPXX MIC COMMS XX=01 to 20	Mic Status LED constantly ON or OFF	• A one-off occurrence may be experienced due to EMI or transients. • Repeated occurrences indicate faulty microphone electronics, so replace microphone console.
Total loss of all functionality on a single microphone.	Mic RAM error	IPXX MIC FAULT-09 XX=01 to 20 (Mic Processor stops)	Mic Status LED constantly ON or OFF	• A one-off occurrence may be experienced due to EMI or transients. • Repeated occurrences indicate faulty microphone electronics, so replace microphone console.
Total loss of all functionality on a single microphone.	Mic ROM error	IPXX MIC FAULT-09 XX=01 to 20 (Mic Processor stops)	Mic Status LED constantly ON or OFF	• Replace microphone console.
Loss of All-Call functionality on a single EAP01 microphone	All Call PTT Contact Fault	IP01 ALLCALL PTT Audio Input 01 or IP02 ALLCALL PTT Audio Input 02		• Check hardwired PTT wiring between the appropriate microphone and the Router. • Replace microphone console. • Replace Router.
Loss of Speak Now LED functionality on a single EAP01 microphone	LED fault SPEAK-NOW	IP01 SPEAK LED Audio Input 01 or IP02 SPEAK LED Audio Input 02		• Check wiring between Router and SPEAK-NOW LEDs on the appropriate microphone. • Replace microphone console. • Replace Router.

Table 3 EAP01 Faults – Intellevac Units (ACU and DAU), VAR8, and VAR8-ACU

Operational Fault Symptom	Fault Description	Fault Code(s) Reported and Logged at the Intellevac Units/ VAR8/VAR8-ACU	Other Indication	Suggested Action
Total loss of live audio announcement from a single microphone, though the microphone still appears to be functional.	Input audio surveillance	IPXX AUDIO INPUT XX=01 to 08	Mic Status LED constantly ON or OFF	• Check audio cabling or power supply cabling between microphone and Router. • Replace microphone console. • Replace Router.
Total loss of live audio announcement from a single microphone, though the microphone still appears to be functional.	Mic capsule fault	MIC<n> MIC CAPSULE n=01 to 08	Mic Status LED constantly ON or OFF	• Check continuity of microphone capsule and any associated wiring, if faulty then replace capsule if possible. • Replace microphone console. • Replace Router.
Total loss of all functionality on a single microphone.	Mic comms fault	MIC<n> MIC COMMS n=01 to 08	Mic Status LED constantly ON or OFF	• Check data cabling or power supply cabling between microphone and Router. • Replace microphone console. • Replace Router.
No operational failure on initial fault report. Total loss of all functionality on a single microphone if subsequent fault reports within one hour.	Mic CPU reset	MIC<n> MIC COMMS n=01 to 08	Mic Status LED constantly ON or OFF	• A one-off occurrence may be experienced due to EMI or transients. • Repeated occurrences indicate faulty microphone electronics, so replace microphone console.
Total loss of all functionality on a single microphone.	Mic RAM error	MIC<n> FAULT 09 n=01 to 08 (Mic Processor stops)	Mic Status LED constantly ON or OFF	• A one-off occurrence may be experienced due to EMI or transients. • Repeated occurrences indicate faulty microphone electronics, so replace microphone console.
Total loss of all functionality on a single microphone.	Mic ROM error	MIC<n> FAULT 09 n=01 to 08 (Mic Processor stops)	Mic Status LED constantly ON or OFF	• Replace microphone console.
Loss of All-Call functionality on a single EAP01 microphone	All Call PTT Contact Fault	IP01 ALLCALL PTT Audio Input 01 or IP02 ALLCALL PTT Audio Input 02		• Check hardwired PTT wiring between the appropriate microphone and the Router. • Replace microphone console. • Replace Router.
Loss of Speak Now LED functionality on a single EAP01 microphone	LED fault SPEAK-NOW	IP01 SPEAK LED Audio Input 01 or IP02 SPEAK LED Audio Input 02		• Check wiring between Router and SPEAK-NOW LEDs on the appropriate microphone. • Replace microphone console. • Replace Router.

7 Maintenance

The EAP01 should be tested with the PA/VA system for correct operation on a weekly basis as part of the fire and emergency system. It also should be tested with the PA/VA system for correct operation, at maximum intervals of three months, as part of the system maintenance schedule.

There are no routine maintenance tasks for the EAP01 except for operational testing.

The following sections describe maintenance tasks, which can be carried out when required.

7.1 EAP01 Build Standard Version

The EAP01 label located on the top part of the fist microphone enclosure indicates the unit's Build Standard version as shown in Figure 2.

It is important to know the EAP01 Build Standard version for maintenance purposes, and to ensure that the unit has the correct functions. The Build Standard version should be quoted in all enquiries regarding the unit.

7.2 Powering the EAP01 On and Off

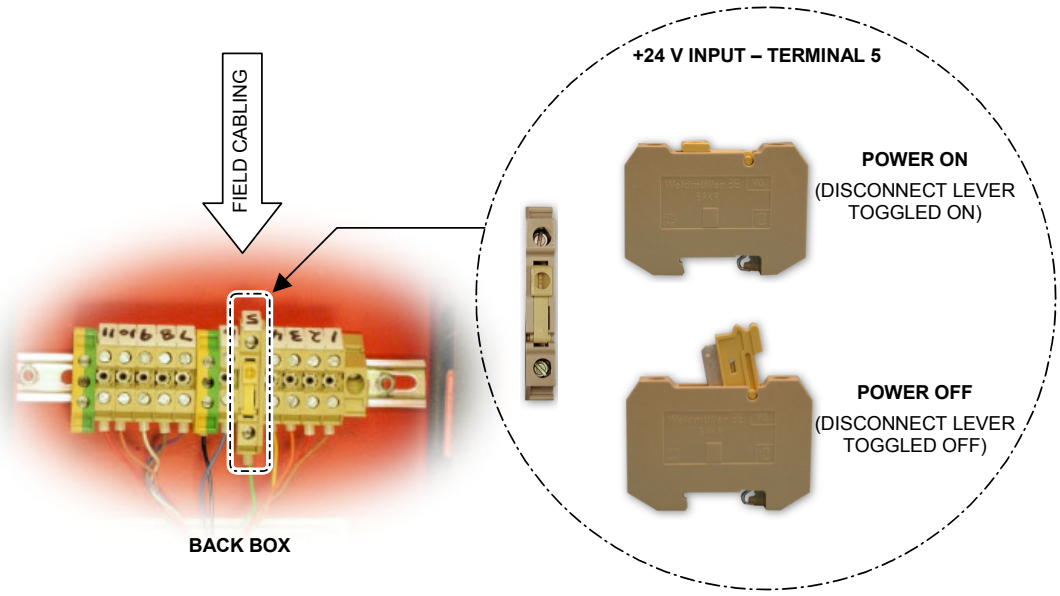
> ⚠ The EAP should always be powered off before being disconnected. Failure to do so may damage the VAR Router, DAU, or ACU connected to the EAP.

7.2.1 Power Supply via Disconnect Terminal

Powering the EAP01 is done by toggling the disconnect lever of the power supply DIN rail terminal (5) in or out, as shown in Figure 16.

> ⓘ The power supply disconnect terminal is provided as standard on EAP01 Build Standard version 4A or later.

Figure 16 Power Supply via Disconnect Terminal

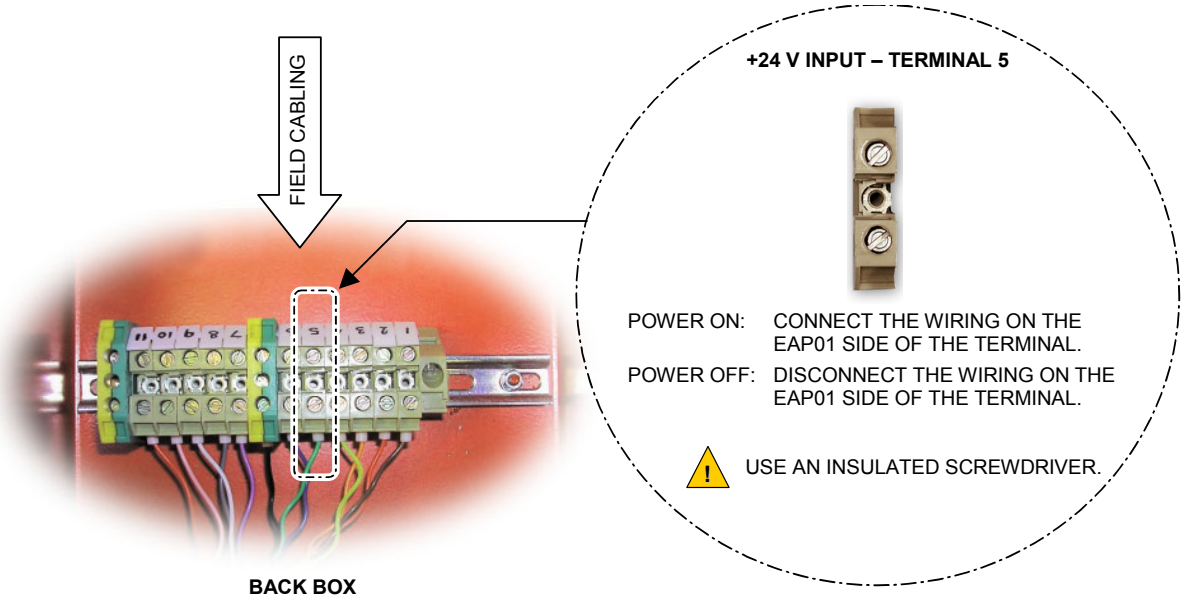


7.2.2 Power Supply via Signal Terminal

Power the EAP01 on or off by connecting or disconnecting the power supply wiring from DIN rail terminal 5 as shown in Figure 17. Alternatively where the installation permits, powering on or off can be done by connecting or isolating the power using the fused DIN rail terminals at the equipment rack.

> The power supply connection is via a signal terminal as standard on EAP01 Build Standard versions < 4A.

Figure 17 Power Supply via Signal Terminal


FIELD CABLING
+24 V INPUT – TERMINAL 5
POWER ON: CONNECT THE WIRING ON THE EAP01 SIDE OF THE TERMINAL.
POWER OFF: DISCONNECT THE WIRING ON THE EAP01 SIDE OF THE TERMINAL.
USE AN INSULATED SCREWDRIVER.
BACK BOX

7.3 Removing the EAP01 Front Panel/Electronics Assembly

For maintenance purposes the EAP01's preferred Line Replaceable Unit (LRU) is the whole front panel and the electronics assembly. Therefore the whole unit should be returned for repair as a single item. The following procedure describes how to remove the EAP01 Front Panel/Electronics Assembly.

The following tools are required to replace the Front Panel/Electronics Assembly:

- A small flat bladed screwdriver.
- A 2.5 mm Allen key or driver.

Removing the Front Panel/Electronics Assembly:

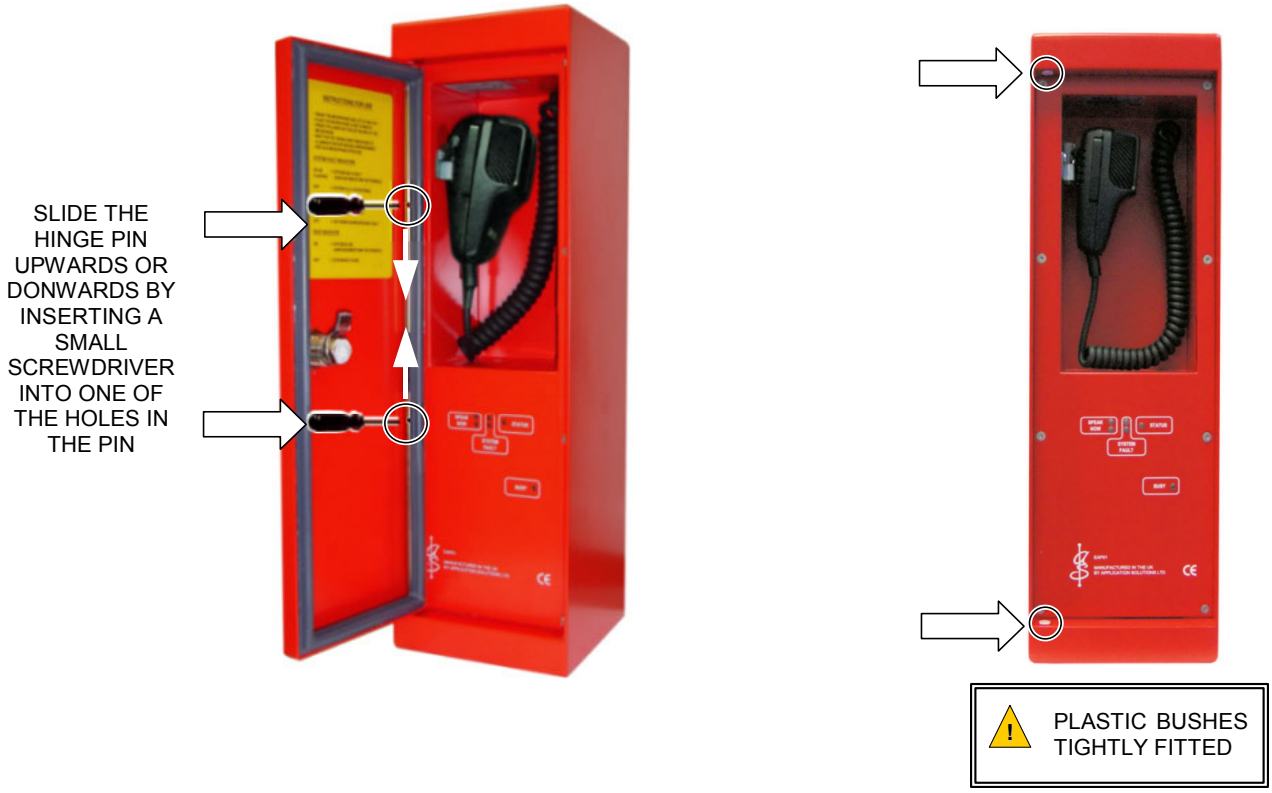
1. Open the EAP01 door using the associated KABA key.

2. Remove the EAP01 door by compressing the hinge pin; see Figure 18.

This can be done by inserting a small screwdriver into the holes in the pin, and sliding it upwards or downwards.

Take care to ensure that hinge pin's plastic bushes in the back box are not loosened.

Figure 18 EAP01 Door Removal


SLIDE THE HINGE PIN UPWARDS OR DONWARDS BY INSERTING A SMALL SCREWDRIVER INTO ONE OF THE HOLES IN THE PIN
PLASTIC BUSHES TIGHTLY FITTED

3. Remove the EAP01 front panel assembly by removing the 8 off M4 Allen screws.

4. Power the unit off as described in Section "7.2 Powering the EAP01 On and Off" (page 36).

5. Disconnect the EAP01 front panel assembly by unplugging the flying leads from the multi-way connectors on the electronics assembly, and undoing the cable loop P-clip; see Figure 19.

Figure 19 EAP01 Front Panel/Electronics Assembly

6. Store the front panel assembly, door and fixing screws safely.

7.4 Installing the EAP01 Front Panel/Electronics Assembly

The following procedure describes how to install the EAP01 Front Panel/Electronics Assembly into the back box.

The following tools are required to replace the Front Panel/Electronics Assembly:

- A small flat bladed screwdriver.
- A 2.5 mm Allen key or driver.

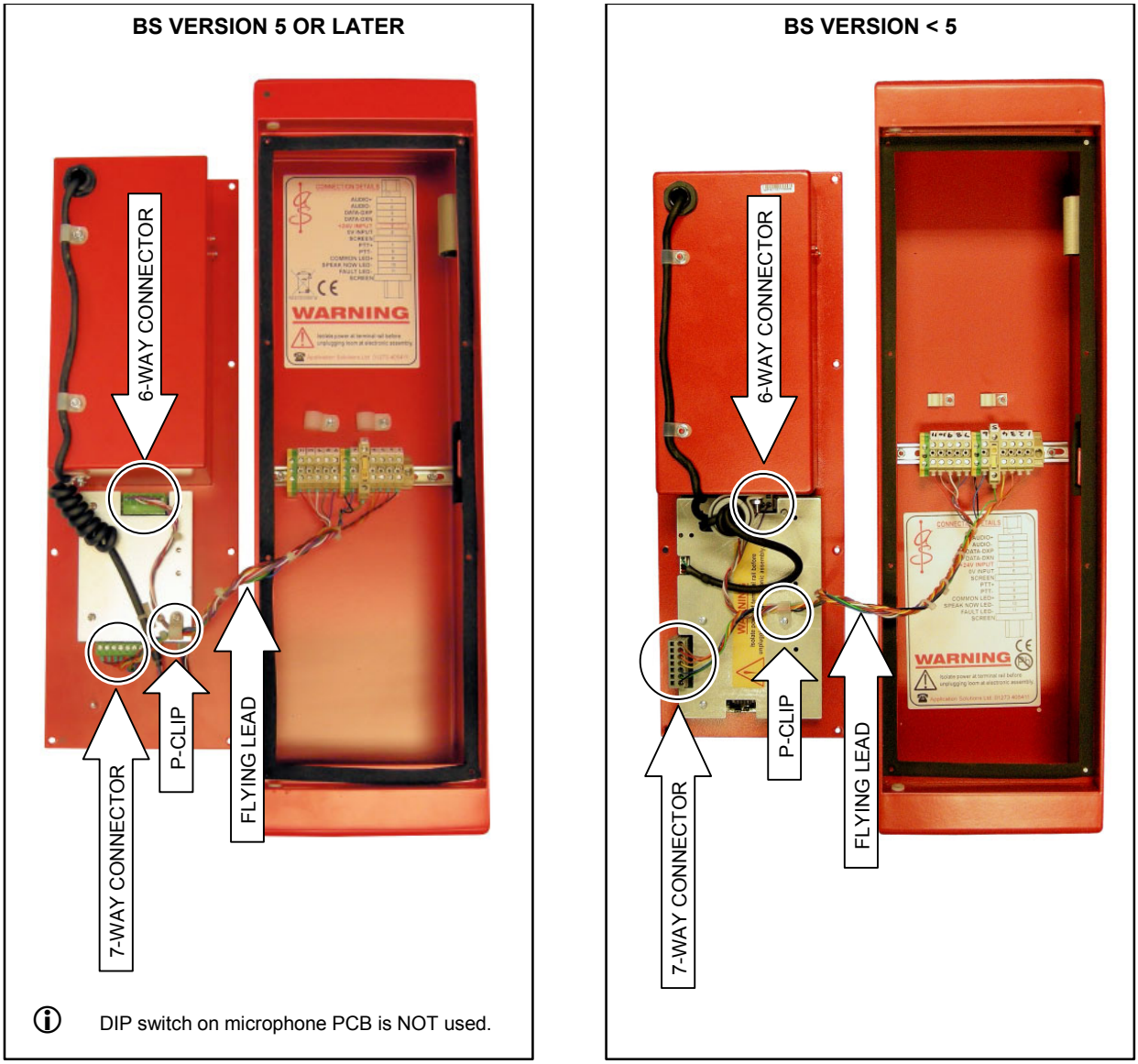
Installing the Front Panel/Electronics Assembly:

1. Connect the new front panel assembly as follows, see Figure 20:

a. Plug the flying leads to the multi-way connectors on the electronics assembly.

b. Secure the flying leads to the front panel using the P-clip provided.

Figure 20 EAP01 Front Panel/Electronics Assembly



2. Power the unit on as described in Section "7.2 Powering the EAP01 On and Off" (page 36).

3. Fix the front panel assembly back in place using the 8 off M4 Allen screws.

4. Re-fit the door, see Figure 21.

> ⚠ Make sure that BOTH plastic bushes are tightly fitted to the door fixing holes in order to preserve the unit's IP rating.

Figure 21 EAP01 Door Installation

SLIDE THE HINGE PIN UPWARDS OR DONWARDS BY INSERTING A SMALL SCREWDRIVER INTO ONE OF THE HOLES IN THE PIN
PLASTIC BUSHES TIGHTLY FITTED

5. When finished, close and lock the door using the KABA key.

7.5 EAP01 Front Panel/Electronics Assembly Replacement

The replacement of the EAP01 front panel and the electronics assembly is described in the following procedures.

- The EAP01 Build Standard 5 or later can only replace legacy EAP01 installations with a modified connection from the back box DIN rail terminals. Additionally the power supply fuse at the equipment rack DIN rail terminals in legacy EAP01 installations should be changed from F0.5A to T0.5 (Farnell 1123206) in order to support the EAP01 Build Standard 5 or later.
- The following procedure is for replacing EAP01 Build Standard 5 or later.
- For information on legacy EAP01 installation upgrade, please refer to Application Solutions (Safety and Security) Ltd.

The following tools are required to replace the Front Panel/Electronics Assembly:

- A small flat bladed screwdriver.
- A 2.5 mm Allen key or driver.

Removing the Old EAP01 Front Panel/Electronics Assembly:

Remove the old EAP01 front panel and electronics assembly if not already done, following the procedure described in Section "7.3 Removing the EAP01 Front Panel/Electronics Assembly" (page 38).

Installing the New EAP01 Front Panel/Electronics Assembly:

Install the new front panel and electronics assembly following the procedure described in Section "7.4 Installing the EAP01 Front Panel/Electronics Assembly" (page 40).

Configuring and Testing the New EAP01 Front Panel/Electronics Assembly:

1. Due to slight differences that may exist on the hardware, re-commission the microphone audio parameters as described in Section "5 Commissioning the EAP01" (page 25):

- Microphone surveillance tone detection

  See Section "5.3.2 Microphone Surveillance Tone Detection" (page 26).

- Microphone relative output gain

  See Section "5.3.3.Microphone Relative Output Gain" (page 27).

- Microphone equalisation

  See Section "5.3.4.Microphone Equalisation" (page 28).

2. Clear any existing faults by pressing the FAULT CLEAR button on the system front panel.

3. Make sure that no fault is reported for the EAP01, refer to Section "6 Fault Finding" (page 34).

7.6 PTT Function Test

Measurement of the resistance between PTT+ and PTT– may not be possible unless the unit is powered, depending on the Build Standard version.

The following procedure can be used to test the PTT function regardless of Build Standard version.

Testing the PTT Function:

1. Measure the voltage between **PTT+** and **PTT–**.
2. Make sure that the microphone is powered, and polarity of PTT connections is correct.

   PTT+ to **PTT–** Voltage Ranges:

   PTT INACTIVE = 2V8 to 3V2

   PTT ACTIVE = 0V4 to 0V5

8 Product Specification

General

Supply Voltage Range ..... 18 – 40 V DC
Current Consumption
Max., all LEDs on ..... 125 mA @ 24 V DC supply
Quiescent ..... 110 mA @ 24 V DC supply
Audio Output ..... 0 dBu balanced (nominal)
Output Impedance ..... 66 Ω
Surveillance Tone ..... 20 Hz
Microphone Control Data ..... EIA RS485 / 19200 baud
Fire Microphone Facility ..... BS5839 Pt 8 compliant
Microphone ..... Fist
Buttons ..... PTT button on fist microphone acts as All Call select button
LEDs ..... Zone Busy
Speak Now (twin)
Status
System Fault (twin)
Colour ..... Red RAL3020

Dimensions and Weight

Dimensions (H x W x D) ..... 500 mm x 150 mm x 151.5 mm
Weight ..... 10.4 kg

Environmental

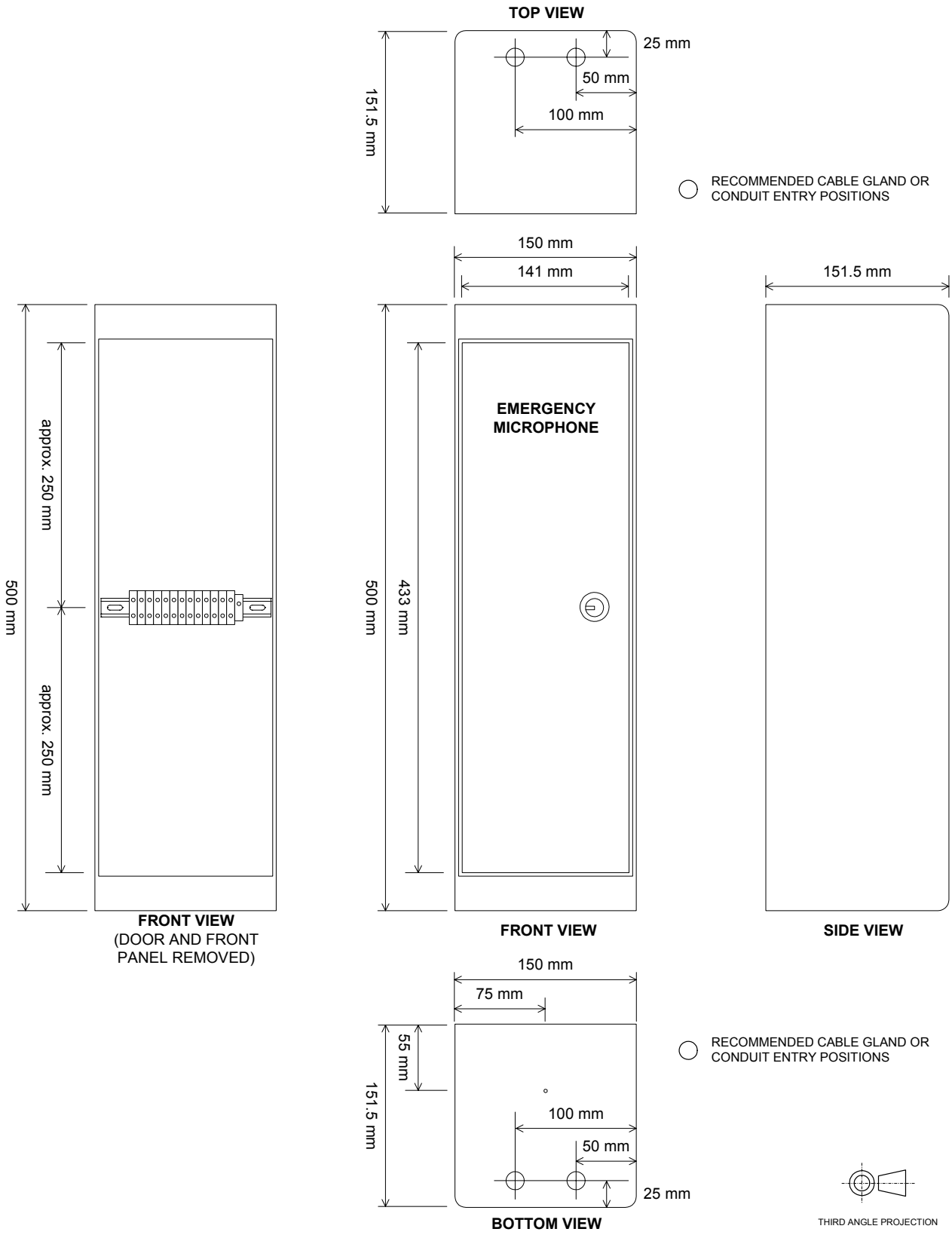
Temperature (storage and operating) ..... –5 °C to +50 °C
Humidity Range ..... 0% to 93% Non-condensing
Ingress Protection IP65
With door closed, and back box fixing and cable entry holes sealed

Safety and EMC

EMC
EN55103-1, EN55103-2, EN50121-4, EN61000-6-2, EN61000-6-3
EN61000-4-3 (80 MHz to 1 GHz) / EN61000-4-6 (0.15 MHz to 80 MHz) ..... ITU/R 562-3
Impairment level 3
In the close proximity to some radio frequency transmitters, the signal to noise ratio of this system may be reduced. If this occurs, ensure adequate system RF earthing or re-locate the equipment or signal cables.
Full performance information available on request
Safety EN60065

9 Mechanical Dimensions

Figure 22 Mechanical Dimensions



10 Safety and Precautions

10.1 Environmental

The temperature and humidity ranges shown in the specifications for this product must not be exceeded.

This equipment must not be installed in an area that is subject to a corrosive atmosphere.

When installed in accordance to the instructions in this document, the unit with door closed provides IP65 ingress protection.

In the close proximity of some radio frequency transmitters, the signal to noise ratio of this product may be reduced. If this occurs, ensure adequate system RF earthing or re-locate the equipment or signal cables.

10.2 ESD

This product contains static-sensitive devices. Observe ESD precautions when working on the equipment with the cover removed.

10.3 Electrical Safety

Always replace blown fuses in the supply to this equipment with the correct type and rating. Ensure power supply cabling is adequately rated.

10.4 Unpacking and Handling

The equipment should be unpacked and inspected immediately on receipt. If damage has occurred please advise your carrier or supplier.

It is advisable to retain the original equipment packing in the event that the equipment ever needs returning for service.

Ensure that the name and address of the Authorised Distributor from whom you purchased the unit is recorded on the "Service and Warranty" page of this manual for future reference.

This equipment contains electronic devices that are sensitive to electrostatic discharge. Please take precautions to avoid damage to the electronics by static electricity.

Advice on packing the product for return can be provided by Application Solutions (Safety and Security) Ltd.

11 Spare Parts

Table 4 EAP01 Spare Part List

ASL Part Number	Additional Information
A0464611	Complete front panel and electronics assembly Function: Provides EAP01 microphone functions. Location: Back box Manufacturer/Supplier: Application Solutions (Safety and Security) Ltd. Manufacturer/Supplier Part No.: A0464611 Manufacturer/Supplier Description: Complete front panel and electronics assembly
A0464612	EAP01 door Function: Protect EAP01 front panel and electronics assembly. Location: Back box (front side) Manufacturer/Supplier: Application Solutions (Safety and Security) Ltd. Manufacturer/Supplier Part No.: A0464612 Manufacturer/Supplier Description: Complete EAP01 door (with hinge pin)
205296	KABA key Function: Lock/unlock cabinet door. Location: Front panel Manufacturer/Supplier: Kaba UK Ltd. Manufacturer/Supplier Part No.: KEY M62613 Manufacturer/Supplier Description: KABA master key
A0464613	Complete back box assembly Function: Houses the EAP01 front panel and electronics assembly. Location: NA Manufacturer/Supplier: Application Solutions (Safety and Security) Ltd. Manufacturer/Supplier Part No.: A0464613 Manufacturer/Supplier Description: Complete back box assembly
203659	Fuse Function: Power supply fuse. Location: Power supply terminals at the equipment rack Manufacturer/Supplier: Farnell Manufacturer/Supplier Part No.: 1123206 Manufacturer/Supplier Description: Antisurge fuse 500 mA (glass)

12 Reference Documents

Additional reference information may be found in the following documentation, available from the "Data Downloads" page of Application Solutions (Safety and Security) Ltd. website:

www.asl-control.co.uk/downloads

Table 5 Reference Documents

Ref. No	Title	Filename Ref	Origin
1	VAR Router Product Description	U-0450-1227	ASL
2	VAR-4 Installation Guide	450_VAR-4_Guide	ASL
3	VAR12, VAR20 Installation Guide	450_VAR-12.20 Guide.doc	ASL
4	VAR Router Operation Manual	Refer to ASL quoting the SW version of your unit for appropriate guide	ASL
5	VAR8 Product Description	U-0450-1361	ASL
6	VAR8 Installation Guide	U-0450-1360	ASL
7	VAR8 Operation, Commissioning, Fault Finding, and Maintenance Guide	Refer to ASL quoting the SW version of your unit for appropriate guide	ASL
8	VAR8-ACU Product Description	U-0450-1431	ASL
9	VAR8-ACU Installation Guide	U-0450-1430	ASL
10	VAR8-ACU Operation, Commissioning, Fault Finding, and Maintenance Guide	Refer to ASL quoting the SW version of your unit for appropriate guide	ASL
11	8x8 DAU200 / DAU400 Installation Guide	U-0518-0852	ASL
12	8x8 ACU and ACS Series Installation Guide	U-0518-0854	ASL
13	Intellevac SW Commissioning and Operation Guide	Refer to ASL quoting the SW version of your unit for appropriate guide	ASL
14	BMB01 Router I/O Expander Installation Guide	450_BMB01_Guide	ASL

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Service and Warranty

Name and Address of Authorised Distributor:

This product carries a full warranty. For full details of warranty and service agreements, please contact the Authorised Distributor who supplied the product to you.

Exclusions

The warranty does NOT cover:

1. Customer misuse, including incorrect installation.
2. Damage other than manufacturing defects.
3. Transit / Courier damage.
4. Incorrect voltage or power supply used.
5. Incorrect input signal.
6. Abnormal environmental operating conditions.
7. Damage incurred by accident, fire, lightning or other hazard.
8. Modification to the unit or inexpert / attempted repair.
9. No fault found – where no fault can be found after extensive testing, indicating user error or failure in ancillary equipment.
10. Electronic assemblies which are improperly packed when returned for repair or service.

Should any of the above apply, Application Solutions (Safety and Security) Ltd. reserves the right to raise any relevant charges to the customer.

Application Solutions (Safety and Security) Ltd. shall not be liable for any indirect, special or consequential loss or damage (including without limitation any loss of profits) arising from the use of this product or for any breach of this warranty.

In the interest of continual product development, Application Solutions (Safety and Security) Ltd. reserves the right to make changes to product specification without notice or liability.

ASL
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